

The University of Maine

DigitalCommons@UMaine

Electronic Theses and Dissertations

Fogler Library

1930

The Penobscot Boom and the West Branch of the Penobscot River

Alfred Geer Hempstead

Follow this and additional works at: <https://digitalcommons.library.umaine.edu/etd>



Part of the [Economics Commons](#)

Recommended Citation

Hempstead, Alfred Geer, "The Penobscot Boom and the West Branch of the Penobscot River" (1930). *Electronic Theses and Dissertations*. 3290.

<https://digitalcommons.library.umaine.edu/etd/3290>

This Open-Access Thesis is brought to you for free and open access by DigitalCommons@UMaine. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of DigitalCommons@UMaine. For more information, please contact um.library.technical.services@maine.edu.

THE PENOBSCOT BOOM
and
THE WEST BRANCH OF THE PENOBSCOT RIVER

A Thesis

Submitted in Partial Fulfillment of the
Requirements for the Degree of Master of Arts in
Economics

by

Alfred Geer Hempstead

B.A., University of maine 1923

B.D., Bangor Theological Seminary 1923

date-1930-

THE PENOBSCOT BOOM and THE WEST BRANCH OF THE
PENOBSCOT RIVER

The Penobscot River, the largest and most important drainage system in Maine, for many years made Bangor the lumber market of the world. Though the boom is no longer strung in the river at Bangor, the river is still the artery of raw material for the pulp and paper mills that have been built upon its banks. The river, which lies wholly within the state of Maine, holds one fourth of the area of the State in its great basin; it extends from the basin of the St. John in the north to the Atlantic Ocean on the south, and from the Kennebec basin on the west to the St. Croix, Machias, and Union River basins on the east. Its basin is about 160 miles long and has an extreme width of 115 miles. In this area are 2,500,000 acres of timberland.¹ In his history of Maine James Sullivan wrote (1795):

The river Penobscott may well be considered for beauty, convenience, usefulness, the first in the District. There is none which equals it for the ease of navigation, or exceeds it in the plentifulness of fish, the excellency of its timber,² or the commodiousness of its mill privileges.

This statement is true today. During the season when the

¹Water Resources of the Penobscot River Basin Maine by H.K. Barrows and C.C. Babb. Government Printing Office, Washington, 1912 pp.8, 13.

²James Sullivan, The History of the District of Maine.

river is free from ice steamboats ply between Bangor and Boston daily. Sportsmen come great distances to fish in this great river. The timber is still a source of wealth to the state. The possibilities of its water power have been utilized only to a small degree.

Lumbering in Maine was confined to the coast and navigable parts of rivers until the most desirable timber had been removed from these areas. Gradually the lumbermen had to go farther inland to find the large trees. This meant the logs must be driven down the rivers to market. The farther inland the timber was cut, the greater were the obstacles to be overcome. The building of dams, the removal of rocks and other such work must be done to facilitate river driving. The history of the development of the Penobscot River for river driving has never been written. It is the purpose of this paper to make a beginning on such a history. It will be limited to a brief account of the Penobscot Boom above Old Town and to the West Branch of the Penobscot River.

I THE PENOBSCOT BOOM
Boom
A. The Penobscot Corporation
A

The logs belonging to many men mingled as they floated down the river. They were all marked with the owner's mark. Somewhere they must be sorted. Most of the logs were destined to be saved into lumber at Old Town. It was logical to sort the logs just above this place. Here was located the Penobscot Boom, one of the most unique institutions in Maine.

A charter to build a boom across the Penobscot River at Costigan's Island, "or at such other place as may be deemed most safe and convenient between Sunkhaze and Hemlock Island, so called,"³ was granted by the legislature of 1825 to a group of eighteen men interested in lumbering on the river. As the names of these men probably constitute the earliest list of men engaged in the lumber industry on the Penobscot River it is well to record them:

Samuel Silsby
Samuel Dudley
Andrew Godfrey
Daniel White
Amos Roberts
S. C. Burrill
Joseph Treat
John Benoch
George Read

John P. Davis
Amos Bailey
Budd Parsons
George Ring
David Ring
Retire Frees
John Benoch, Jr.
Ira Wadleigh
Ebenezer Webster

"Before that time they had to go through the slow process of picking up their lumber, being obliged to keep crews and boats out day and night, building large fires upon the shores to make light upon the water, to enable them to see the logs as they went floating by in the darkness."⁴ The legislature of 1827 amended the charter to allow the corporation "to purchase, hold and possess any lands adjacent to the Booms already erected, or hereafter to be erected, not exceeding four hundred acres, with all such buildings as they may deem necessary, for the convenient management of the affairs of said corporation."⁵ That same year Rufus Dwinel purchased the franchise. (The boom was then located at Argyle.) In 1832 Mr. Dwinel procured a new charter and erected a boom at Pea Cove. The charter allowed a toll or boorage of

David Norton
4. *Sketches of the Town of Old Town 1881*
b.p.

5.

thirty-eight cents per thousand board feet upon lumber boomed, rafted and secured, including the warps and wedges.

This time the charter read, "That said corporation may erect and maintain a Boom across the Stillwater branch of the Penobscot ^{River} between Birch Stream and Eber's Point.....and piers and side or branch Booms, where they may think it necessary, between Hemlock Island and Orson Island, between Birch Stream and Pushaw Falls, and between Pea Cove and the outlet of the thoroughfare between Orson and Marsh Islands." 6.

The following year Mr. Dwinel sold the franchise and property to General Samuel Veazie. The General found that Pea Cove Boom was not able to take care of the constantly increasing lumber business and, in the winter of 1836-7, erected a boom at Argyle.

The log owners, however, were not yet satisfied. In the Legislature of 1838 they secured an act additional to the charter, by which the Governor and Council were to appoint three men as a Boom Committee with authority that practically made them managers of the boom. The purpose was apparently to expedite the work at the boom. During the following five years General Veazie expended over \$11,000 for added

construction under the direction of the boom committee. Ira Wadleigh, Amos M. Roberts, and Daniel White constituted the first committee. All three were numbered among the incorporators of the original boom in 1825. This committee is still appointed annually. The present committee (1928) is Charles H. Adams, Charles D. Whittier and Louis J. Freedman. It is now an annual custom for the directors of the Penobscot Lumbering Association to make recommendations to the Governor and Council of suitable persons for appointment to this committee.

The legislature of 1842 authorized an investigation of the Penobscot Boom Corporation by three competent and disinterested men to be appointed by the Governor and Council. This committee was to survey the erections and property and report the actual cost, depreciation, present value, annual expenditures, risks, losses and receipts. The corporation was to employ a clerk, acceptable to the boom committee, who should be sworn to keep accurate and detailed record of the income and expenditures for the ensuing year.

The record of this investigation by Joseph Sewell, "Jn'o" Lee and Charles E. Bartlett gives a very accurate description of the boom of 1842.

Since 1833 the present proprietor has erected the chief works and buildings, and procured the lands and privileges, and purchased the boats and implements, that now compose the property of the corporation, and constitute its strength, security and convenience.

The boom rests upon thirty-seven piers of cribbed work, with seventy-two sunken piers and rocks, having buoys attached; the piers being loaded with stone. In the piers are nine hundred and twenty thousand one hundred and eighty-two feet of timber, (board measure) and in the boom sticks and yokes, three hundred and twenty-one thousand and four hundred and forty-six feet. The boom sticks are secured to the piers, and connected with each other with shackles, straps and links of iron. The weight of iron upon the boom, is one hundred thousand nine hundred and twenty-six pounds. The stone filling the piers comprises sixteen hundred and five and three-fourths cords. For the use of the main boom, there is a house and office, and for the use of the boom at Argyle, a dwelling-house and barn. The length of the boom as now used, is sixteen thousand four hundred and seventy-five feet; four thousand nine hundred and forty-one feet of which compose the main boom on the right bank of the Stillwater branch of the Penobscot, at Old Town; and eleven thousand five hundred and thirty-four feet, the boom at Sunkhaze and Argyle.

The quantity of timber received into and rafted from the boom within the last ten years, is as follows:

In 1832.....	24,831,040feet
In 1833.....	27,404,396feet
In 1834.....	9,180,101feet
In 1835.....	82,172,387feet
In 1836.....	44,620,195feet
In 1837.....	54,785,591feet
In 1838.....	57,198,728feet
In 1839.....	51,171,445feet
In 1840.....	36,907,238feet
In 1841.....	49,209,413feet

Average quantity for ten years, 45,748,053 feet.

There were secured in the boom, and delivered under rigging, the present season, 74,331,000 feet. The last season was favorable for lumbering operations in the woods, and the spring of 1842, very much so for running logs on the Penobscot and its branches, and the extensive operations of this year, have probably produced a larger quantity than may be expected again in any one year. The quantity to come may not be estimated at more than forty-four million, that will pass through this boom annually, for the coming ten years.

From the records of the clerk, David Horton of Old Town, we find there were 160 accounts to be settled that year. Several accounts were charged against operators like Oliver Frost. There were only five drives containing more than two million feet and sixteen drives more than one million feet. The whole 160 totaled nearly seventy-five million feet.

Many of the men who owned logs rafted that year have left their names in the north country. Mountains, lakes and brooks were named for these pioneers. Looking over the list we find the following names that are now landmarks up-river:

C. Cooper and Company
Oliver Frost
Jewett and Marsh
C. E. Dole
Isaac Smith
T. J. Grant
F. A. Read

Fisk and Norcross
Thissel, Longley and Company
Richard Webster
J. and J. Wadleigh
Isaac Farrar
Gulifer, Foss and Company
Carlton and Ingals

In 1847, Hon. David Pingree of Salem, Mass. purchased the boom from General Veazie for \$55,000. The Pingree estate still owns the boom.

The next legislation seriously concerning the boom came in 1854. The following sentence from House Document No. 29, page 2, gives an idea of the stormy history of the Corporation:

"Its history, since its first construction, is fraught with numerous instances of troublesome and expensive litigation, not only to its proprietors, and to the lumbermen on the Penobscot waters, but to the state also."

From the same document comes the following:

"Of its importance to the great lumbering interest carried on upon the Penobscot River, and its numerous tributaries and great lakes, equaling in amount, the present season, by estimation, about two and one half million of dollars, there is but one opinion. It is identical with the lumbering interest; and so far as the undersigned have been able to ascertain the sentiments of men engaged in the lumbering business, from the testimony before your committee, there appears to be no desire that a toll be established below a point which shall yield to

its present highly respectable proprietors a liberal compensation for their investment."

Among the records filed at this time is a detailed account of the property and equipment. From it we learn there were 23 piers at the Argyle Boom, 3 piers at Freeze Island Boom, 6 piers at Sunkhaze Rips Shear Boom and 34 piers at the Main Boom. This report was signed by Rufus Davenport, David Gatchell and Mark Pettingill.

B. The Penobscot Lumbering Association.

The result of the dispute over toll in which the boom owner desired fifty-three cents per thousand feet and the lumbermen fought to make it fifty cents, led in this legislature (1854) to the incorporation of the Penobscot Lumbering Association, representing the lumbering interest and to the amending of the charter of the Penobscot Boom Corporation allowing it to rent the boom and all its property to the new association. From that time to the present this arrangement has continued. The fifth lease of fifteen years expired in January 1929 and was renewed again by the legislature.

Writing in 1879, David Norton made this comment on the

arrangement of 1854, "Although it has cost the lumbermen more to raft the lumber than the established price, they are disposed to carry on the boom, as they escape what to them seemed an unjust authority or supervision over their property__the boom owners rafting or neglecting to raft the logs, without regard to the interest of the lumber owners."⁸

The development of the Penobscot Log Driving Company (1847) as a mutual company naturally led to the idea of similar cooperation at the boom. In the act of incorporation, seventy-four men were named as members of the board of trustees. Their names are reproduced to show who were the operators and land owners at the time. "Any owner of lumber in the Penobscot river, or designed to come into the Penobscot Boom, may become a member by leaving with the Treasurer sufficient evidence of his being an owner of logs, and the amount thereof. Each person, on becoming a member of the Association, shall be allowed one vote for every hundred thousand feet of lumber belonging to him as aforesaid" (Sec. 3 of charter). The following were named as the first board of Trustees:

Ebenezer Blunt	William H. Smith
F. Adams	William Soper
D. R. Stockwell	W. Henderson
J. T. K. Hayward	C. E. Dole

*S. David Norton: Sketches of the Town of Old
Town. pp.*

R. Davis, Jr.	W. H. McCrillis
J. H. Bowler	Amos H. Roberts
H. E. Prentiss	C. S. Bragg
A. Moor	Jessie Madleigh
N. H. Allen	James J. Norris
John Libby	William A. Rowe
Winslow Staples	Thomas Ranney
W. Jameson	James Lee
M. Buck	Phineas Foss
E. S. Coe	Nathaniel Swett
Henry Spencer	John T. Strickland
J. B. Foster	Hastings Strickland
E. Paulk	James Thissell
Daniel Lord	James Webster
C. D. Jameson	J. J. Colburn
J. S. Wheelwright	John Winn
C. G. Sterns	Seth Paine
Walter Brown	Caleb Holyoke
W. Gilman	Samuel P. Strickland
Isaiah Stetson	John Lane
J. Eddy	Leonard Jones
A. C. Buffum	Samuel Bailey
E. Webster, Jr.	T. A. Reed
C. S. Clark	William R. Hersey
J. W. Palmer	Rufus Dwinel
Ezekiel Marsh	S. F. Hersey
William S. Snow	William R. Miller
Jonathan A. Cushing	Richard Hibbey
S. W. Furber	Shepherd Boody
Aaron Babb	Harvey Reed
Lorenzo Leadbetter	William Ramsdell
D. F. Leavitt	G. L. Boynton
Paul D. Webster	S. J. Foster

The Association was given a lease for fifteen years. They obligated themselves to build all necessary new construction, make all repairs, pay all taxes, sort and raft the logs and pay to the owners of the boom ten cents per thousand board feet for all lumber passing through the boom. The fifth lease of fifteen years expired in January 1929. In 1869 the royalty dropped to nine cents, in 1883 to seven and one-half cents and now is four cents.

At present Mr. James L. McNulty is president. Mr. Charles H. Adams, the clerk and treasurer, has held his

office since 1896. Instead of the seventy-four members of the Board of Trustees of 1854, there are now only six directors to represent the present-day lumber interests which use the boom. There is one case of duplication even then and only three of the companies represented are active.

Virgil E. Tucker (Jordan Lumber Company).
W. V. Wentworth (Penobscot Chemical Fiber Company).
Joseph F. Gould (Penobscot Chemical Fiber Company).
Henry L. Barker (Barker Lumber Company).
J. O. Lynch (Eastern Manufacturing Company).
R. E. Mullaney (Orono Pulp and Paper Company).

THE BOOM IN 1893

For nearly forty years the records show no serious difficulty at the boom. In the early 90's, however, dissatisfaction developed. A Petition, dated June 19, 1893, signed by White and Crane, C. F. Palmer, M. L. Emerson, Hinch and Kelley, F. W. Ayer and Company, requested the Boom Committee, annually appointed by the Governor and Council, to investigate the equipment and management of the boom. Lysander Strickland and W. E. Palmer made the report. Hon. Joseph L. Smith, the third member of the Committee, was ill and unable to assist.

Their report to the clerk of the Penobscot Lumbering Association gives a picture of the operations at the boom at its height. They recommended:

That you rebuild one pier in Greenbush, build a new pier at the head of Jackson Island, and examine thoroughly all the booms from Greenbush to Pea Cove and wherever decayed or sunken

sticks are found, remove such and replace with suitable sticks.

Rebuild one of the jam piers at Argyle, build a new pier just below Sunkhaze trip, rebuild three piers in Sunkhaze, rebuild three piers in Mexico, and renew the blockings under the sleeping house at Argyle.

Some of these recommendations were made two years ago and no attention has been given them; we now insist that all be made before next spring.

NEBRASKA

At this boom Mr. Hinckley has charge; a large number of able bodied men, one hundred and twenty (120) are at work. But little rafting has been done at this place, but with the present force they expect to make a good report--all logs are stopped at this place.

ARGYLE

Mr. Mann is in charge of this boom with one hundred and twenty men (120) and is using more shore and length of boom in rafting than ever was used before.

Last six and a half days ($6\frac{1}{2}$) rafting, averaged five hundred and sixty-nine thousand feet (569,000); logs averaged one hundred and nine feet; logs rafted in May averaged one hundred and seventeen (117); all logs stopped here.

PEA COVE

Mr. Chapman has control of this crew of one hundred and sixty men and boys (160), and is using all the river shores that is usually used and more of Birch Stream than ever was used in sorting and rafting the numerous marks that came through the boom.

We also told them (the contractors) of the importance of crowding the logs through the booms, as the saw mills were short of spruce logs and many were out of logs, which they promised to do, but the large number of quantity of cedar and pulp stock made it impossible to raft spruce faster.

and the
lally large }

RAFTING

The rafting of logs has been put up for bid. The two contractors whose names have been most prominent since 1884 to the present are Charles M. White and S. J. Bussell as the following data shows:

- 1884 Daniel Lunt, Charles M. White and J. Fred Webster
- 1885 Walter E. Palmer
- 1886 Webster and White.
- 1887 Charles M. White, E. and J. Fred Webster
- 1888 Charles M. White E. and J. Fred Webster
- 1889 Charles M. White, E. and J. Fred Webster.
- 1890 Charles M. White, E. and J. Fred Webster.
- 1891 C. A. Lowe and J. B. Bussell.
- 1892 Charles M. White.
- 1893 Samuel Lowe, John B. Bussell and Isaiah W. Bussell.
- 1894--1906 Charles M. White.

For the season of 1907 Mr. White was paid a salary to take charge of the rafting. From that time on to the present, 1908--1928, Mr. S. J. Bussell has represented the Association and taken charge of the rafting. During this period the change from long logs to four foot wood has been made by the pulp and paper companies. The wood destined for the mills higher up the river of course does not come to the boom and Bangor has ceased to be the lumber market of the world as it once was.

Mr. Charles H. Adams has compiled the figures of the rafting of long logs for the last twenty years indicating the average size of logs rafted.

	Pieces	Feet	Av.
1909	1,728,318	131,165,370	75.8
1910	1,772,721	135,928,940	76.6
1911	1,450,384	108,798,740	75
1912	1,594,550	114,346,450	71.7
1913	1,744,186	113,391,470	65.
1914	1,377,511	94,539,700	68.6
1915	1,810,165	105,056,730	58.

1916	1,278,992	80,161,410	62.0
1917	938,212	52,111,000	55.5
1918	703,881	42,905,640	60.9
1919	897,177	46,322,700	51.6
1920	864,501	51,509,350	59.5
1921	674,877	42,312,650	62.7
1922	737,143	40,783,010	55.3
1923	253,149	16,882,910	66.7
1924	447,468	25,917,270	57.9
1925	133,022	8,447,870	63.5
1926	66,008	4,597,600	69.6
1927	<u>33,284</u>	<u>3,239,320</u>	<u>97.3</u>
Totals	18,505,549	1,218,448,130	65.84

Ft. per log
Logs per thousand 15.18

The legislature of 1921 gave the Association authority to handle four-foot pulpwood. Any owner of pulpwood may become a member of the Association on terms similar to those of log owners with one vote for every two hundred cords of pulpwood belonging to him. The pulpwood is secured in bag booms instead of being rafted by warp and wedges. The charges for handling pulpwood include the expense or direct cost of handling the wood plus its proportional share of the overhead of operating the Association.

C SORTING AND RAFTING AT PENOBSCOT BOOM*

The Penobscot Log Driving Company delivered the logs of all operators into the Penobscot Boom to be sorted, rafted and turned over to their owners by the Penobscot Lumbering Association. The two main booms, Argyle and Nebraska, with Pea Cove Boom for emergency use, were strung across from islands to the main land. Sorting gaps allowed for the passage of logs. Each crew, interested in securing its own logs and rafting them, had a man standing on a log in mid-stream. He kept his position by grasping a rope which was stretched across the water, the ends being fastened to trees, one on the shore and the other on the island. Standing with one foot on a log and holding the check line, the man could read the marks on the logs or, if the mark was not up, he could roll the log with his free foot until he could see the mark. He allowed to pass all logs without the mark that he was interested in but when his mark came, he gave the log a vigorous kick toward shore where the rafting crew secured it. In the days when two hundred men were working at the boom these rafting crews filled the shore for nearly a mile.

The logs sent to the rafting men were made into rafts of about thirty logs. A hard wood wedge four inches long and about three-fourths of an inch square, sharpened at one end, was driven into the log by a wooden mallet.

* This account of sorting and rafting was written *by me* from notes taken in an interview with Mr. George Longley of Old Town. The written article was submitted to Mr. Longley and approved by him and printed under his name in the Northern July 1928 pp.5.

Half hitches were made around this wedge with rafting rope or "rigging" and passed on to the wedge of the next log until the raft was completed. The raft was then taken out into the river and secured to a buoy.

In the 70's a man invented the "crotched wedge," a sort of wooden staple, sawed out in the middle so that the rope was fastened to the log by having a crotched wedge driven down over it. This did away with half hitches and reduced the amount of rafting rigging. The man who invented the wedge went to several of the lumbermen and tried to sell the right to make them but they refused to buy, saying it was not practical. However, after it was tried, they would never use any other. These wedges were made at Enfield and later at Costigan.

The rafting crew of two men and the one working the "trip" rotated their work as the one sorting had a hard job when many marks were running.

Twice a day the running crews would come up and take the rafts from the buoys to the shores lower down the river. No one had a right to land logs on these shores unless he owned the land or rented it. These shore privileges were valuable in the "palmy" days of the boom but are not worth much now. Here by the shore the logs were put into larger rafts, made up by joining the smaller ones,

sometimes a thousand logs long. They were secured to the shore by big lines fastened to snubbing posts which were set in the ground after the manner of fence posts.

Here the logs remained until the mill men came to look them over and to buy. As fast as they were purchased, a scale mark was put on with a scaling iron--the new mark of the new owner. Any logs that were overlooked by this scaler reverted to the original owner of the log mark. After the buyer's mark was put on, the logs were taken to the mills of the new owner at Old Town, Milford, Stillwater, Orono, Veazie, Bangor, Brewer or Hampden.



















It is interesting to note that the owner of the logs had to pay the P. L. D. the Full Bigness Scale but he had to sell by the Straight and Sound Scale. Of course this was logical because it cost as much to drive a crooked or hollow log as a straight and sound one but the mill owner did not want to buy the imperfect lumber.

D. PENOBSCOT LOG MARKS

When long logs were driven down the Penobscot River in quantities, they were marked with an axe, usually by the yard man at the landing. The cut had to be made through the bark into the wood itself and at both ends of the log, which was rolled over before the second mark was put on so that in the water the mark on one end or the other would be visible. If the logs were unusually long, they were sometimes marked in the middle as an extra precaution. This

would make it impossible for another party to cut off the marked ends and put on a new mark. In the case of tops of trees, which taper and are not very large anyway, the mark was put only in the middle.

With the passing of long logs for pulpwood, the old elaborate log marking has largely disappeared and a quicker method has been devised. The Great Northern Paper Company, for instance, adopted the stamp hammer using the letters GN.

	twenty		diamond		anchor
	girdle		cat's head		double-anchor
	star-girdle		rabbit's track		girdle
	hat		long-forty		lazy-v
	dart		square-forty		reel
	double-dart		notch		crow's foot

In some respects, it is not unlike a branding iron, yet it has more of the characteristics of a hammer; it might be called a cold stamp. A blow of the hammer on the smooth sawn butt of a log leaves the impress of the owner's mark. Some operators use a brush instead of the stamp hammer, painting on the butt of the logs some simple mark or a circle.

As Adams, as an official of the Penobscot Corporation, has a complete list of the log and with the corporation. They are numbered. What is more, he can read them. The

combinations of letters are strange in some cases, and the symbols remind one of Chinese characters. It is fascinating to discover the names of the characters, which until recently were so common that river men could read them as easily as we read capital letters. Mr. Adams knows them all: scalp, diamond, double-dart, cat's head, crow's foot, rabbit track, anchor, reel, hat, notch, girdle, belt, long-forty, short-forty, lazy-v and so on.

These characters, combined with monograms and initials to mark logs, were registered with the Penobscot Log Driving Corporation. They were supposed to be registered also with the Registrar of Deeds in Bangor but this was not always done. The marks changed from year to year so that a man could distinguish his logs of one year from those of another, and if he had several operators, each one would have a mark. For example, the Stricklands in 1894 used this mark $\times \times \beta$ which was read "Square-forty turtle girdle B." Some one used $\langle M \rangle$ as his mark and read it "Lazy-v M Lazy-v." This was probably because the v was not in an upright position, therefore lazy!

Unusual combinations of letters were worked out for marks such as three H's made as one H H H . Other examples are:

- M R X M girdle R cross
- $\bullet E * W$ notch E star-girdle W
- $M \text{ III } *$ J M belt star-girdle
- $\nabla E P$ hat E hat
- $E K N ::::$ E K N six notches

II. THE WEST BRANCH OF THE PENOBSCOT RIVER

For a hundred years the West Branch of the Penobscot River has been the scene of lumbering and river driving. The first lumbering operation on the West Branch was started on July 5, 1828 by Stephen Bussell, Isaac, Jeremiah M., and William Freese, John Marsh, Eben Hathorn, William Grant, Gorham Rollins, Hugh Alexander and Philip Spencer. They found some "monster" trees; one pine that they felled had a notch cut in it with forty layers of wood outside the mark. Near the site of East Millinocket four of the men in one day cut fifty-four logs, and rolled them to where high water would take them off; these sealed 25,000 feet. The next spring they picked up their logs at Mattaseunk, rafted them and ran them down the river.⁹*

Previous to this time, the river was used only by travelers and explorers; the river from Northeast Carry and Northwest Carry to Chesuncook Lake was best known and seriously considered as a part of routes of travel which promised to be of more importance than was ever realized.

Moses Greenleaf published a scheme in 1816 by which he thought the tide waters of Maine and the southwestern branch of the Upper St. John could be

⁹* The Old Town Herald, October 1884

also reprinted in The Northern July, 1924 pp 9

united by the use of canals. The route was "up the river Kennebeck to its source in Moosehead Lake, thence by canal of about one and one-half miles into the west branch of the Penobscot, thence descending that stream to Chesuncook Lake, thence up the Umbazuckscus north-easterly to a small pond at its head".¹⁰ This pond is now known as Mud Pond. This route from Northeast Carry to the St. John River is the one that has been followed by sportsmen for many years.

In his trip of 1837, C. T. Jackson's reference to Northeast Carry implies that the lumbermen had not reached that point but that it was used by travelers.

"As this portage is much used by people passing to Madawaska, a road has been cut by the state, for their benefit, and for the convenience of supplying exploring parties. It is now out of repair, muddy, and encumbered by fallen trees and bushes."¹¹ Speaking of Umbazuckscus he says it was "only ten miles long, and almost overgrown with tall grass and lily-pads. Thick elder bushes cover its banks, through which it is almost impossible to penetrate; so that a part of the three last miles, where the stream was too low to float the boat, we were compelled to wade. A good portage has been cut out by the state

¹⁰ Collection of the New Brunswick Historical Society No. 9 pp. 384--386.

¹¹ C. T. Jackson's Geology of the Public Lands belonging to the two states of Maine and Massachusetts 1838 pp.57

to the distance of about fifty rods."¹²*

Another route of travel under consideration about this time was from Bangor to Quebec. A steam boat operated on Moosehead Lake for the first time in the summer of 1836. The road from Bangor to the Lake was nearly completed. Major Silas Barnard was authorized by the states of Maine and Massachusetts to lay out a road from what is now Seboomook (Northwest Bay) on Moosehead Lake "up the West Branch of the Penobscot, to intersect the Canada road near the line separating Maine from Canada----about thirty-eight miles".¹³* The report goes on to say "when this shall have been completed, the communication between Quebec and Bangor will be as easy and agreeable as that ~~as that~~ between Bangor and Boston. The ease and novelty of the route, together with the romantic scenery of the lake, would make this a favorite tour for parties of pleasure and draw a large amount of travel through the state."¹⁴*

Approximately this route can be traveled by automobile now but up to ten years ago it could not have been open except for winter travel.

From these early sources we can be assured that exploring parties had been on the upper part of the West Branch but up to 1837 lumbering had not yet started above Chesuncook Lake. Apparently, considerable activity had taken place earlier than this below Ripogenus Lake for Jackson says (1837 trip):

¹²* Ibid

¹³* Land Agent's Report 1836 pp. 3.

¹⁴** Ibid

then

80

"We came to Gibson's clearing of ~~eighty~~ acres on the eastern side ~~in~~ the place is not inhabited. A little above this clearing, on the eastern side, comes in the ~~Southern~~ ^{Wadnehuk} ~~adnehuk~~, so named by the aborigines from its running between mountains."¹⁵ From the same source we learn, "A clearing has been made at the head of the lake (Chesuncook), on land belonging to the state, and some timber cut. There is not, however, much good timber in the immediate vicinity."¹⁶ Jackson refers to a house at Nickatow (where the East and West Branch unite, now called Medway) where he obtained food. These are apparently the only clearings that attracted his attention.

The increase of lumbering activity makes it necessary to go farther inland for great pine. This requires the building of dams and the incorporating of dam companies. It seems well to me at this point to divide the history of the events on the West Branch into three periods as follows:

1. The period of independent effort 1828-1846,
2. The period of cooperative effort 1846-1903,
3. The period of corporation control from 1903 to the present time.

I. The Period of Independent Effort 1828-1846

From the time that the first logs were cut on the West Branch (1828) to the incorporation of the Penobscot

¹⁵ Jackson's Geology of the Public Lands belonging to the two states of Maine and Massachusetts 1838. pp. 54

Log Driving Company in 1846, corporation drives were probably unknown. Each operator drove his own logs independently. As long as dams were not in use it did not matter much. Advantages would accrue to the holder of a dam, however. As these advantages were developed it became necessary for cooperation that injustice to many might be avoided. The material available for a study of this period of independent effort is very small. Much must be drawn from inference.

A. Chesuncook and North Twin Dams.

The charter for the Chesuncook Company was the first to give the right to build a dam on the West Branch. The charter granted the right (February 19, 1834) to Stephen Cummings, Robert Boyd, James Head and Enoch Paine to create a corporation "for the purpose of removing the obstruction in, and opening and improving the navigation of the Penobscot river between Chesuncook Lake and Sowadahunk, and to ^{construct} ~~construct~~ a canal with ^{sluices, and side dams,} ~~sluices, and side dams,~~ between Chesuncook Lake and Sowadahunk and to erect a dam at the outlet of said Chesuncook Lake, for the purpose of raising a sufficient head of water to float the logs and timber from the same into and down the Penobscot river".¹⁷ Just what is meant by "a canal between Chesuncook Lake and Sowadahunk" is a problem. Certainly it does not mean what it says as no such canal would be feasible. Possibly the incorporators called Ripogonus Lake, Sowadahunk. In any event, no canal was ever built. Eventually a dam was

built at the outlet of Chesuncook Lake and obstructions removed from the channel that connected Chesuncook Lake with Ripogenus Lake. It would appear that this work was not accomplished within the time limit of the charter for on February 29, 1836, an additional act was passed extending the time of construction three years provided the dam at Chesuncook Lake be built within three months. This act also gave the power "to construct such side booms, side dams and sluices, and to remove all obstructions, on said river, between Pameduncook Lake, and the lower Twin Lake, as may be necessary to make the navigation of the same good for logs, timber, and other lumber, and to erect a dam at or near the outlet of the lower Twin Lake." etc.* We find no record of any work done, but on March 14, 1839, an additional act extended the time five years from the passing of the act. In the report for that year by Rufus McIntire, Land Agent (January 1, 1840) is found :

"I advertised the settling land for sale, agreeably to the provisions of law. Under the impression that timber land, which the law requires to be sold at auction, would not be saleable this year, I did not advertise any for sale. Unexpectedly, however, application was made to the Land Agent of Massachusetts and myself, to purchase undivided timber land, which can be sold at private sale, and we sold township No. 6, range 10; the south half of No. 7, same range; lots No. 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, 20, 24, 25, 29, 30, 34, 35, 36, 37 and 38, in township No. 4, range 12;

and lots No. 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36 and 37 in township No. 4, range 13, west from the east line of the state. Whole amount of sales, fifty-four thousand six hundred and forty-two acres, for the sum of eighty-nine thousand four hundred and twenty-seven dollars and twenty-eight cents; which, considering quantity and quality of the timber and its location, and character of the soil, is believed to be a fair price. The last two tracts lie on the Chesuncook Lake, on the west branch of the Penobscot river, and were sold at prices apparently low, to give the purchasers an interest to induce them to make the improvement in that branch, contemplated in the additional Act of the last Legislature, passed March 14th, being additional to an act to incorporate the Chesuncook Company, and which, if accomplished, will greatly enhance the value of the timber on that river now unsold."

From the foregoing it is not possible to say whether or not Chesuncook Dam had been built. We know, ^{however that} it was built before 1846 because the dam is mentioned in the charter of the Penobscot Log Driving Company.

An act to incorporate the North Twin Dam Company, approved June 22, 1847, revoked from the Chesuncook Company all rights at North Twin Dam and gave them to Samuel F. Hersey, William Emerson, Isaac Farrar, S. P. and H. Strickland, James Jenkins, and William H. McCrillis. The new corporation was authorized among other privileges "to purchase, construct and maintain a dam or dams" which would indicate the existence of a dam at that place. Thoreau refers to the crew of men engaged in repairing a dam at

this place on his trip that year.*¹⁹

B. The West Branch Boom Company

In the archives of the State House at Augusta there is a ~~handwritten~~ ^{in the handwriting of} petition of Robt. Gibson in which he, together with Stephen Cummings, Enoch Paine, A. Shaw and E. B. Usher pray for the right to incorporate the West Branch Boom as follows:

"The undersigned respectfully represent, that they in common with other citizens of the State, are largely interested in timber land above the lakes, on the West Branch of the Penobscot River, and are now engaged in cutting timber on the same; that said River flows into Lake Ambergeus, across which, and the neighboring Lake Bomedumpcook, all the logs which are cut and hauled in, and floated down said river must be rafted, that in order to collect and receive the same as they enter said Lake, a permanent Boom at the head thereof is indispensable, and will be of great public utility; that the expense of constructing said Boom will amount, in the opinion of your petitioners, to the sum of two thousand dollars--"

In response to this petition such a charter was granted on March 24, 1835. No further reference to this boom has been found by the writer. It is not mentioned in the charter given to the Penobscot Log Driving Company.*²⁰

19*

20*

C. The Nahmakanta Dam Company

The Nahmakanta Dam Company was incorporated on the authority of a charter approved February 9, 1837. The incorporators were Horace Meech, Jonathan Crane, John T. Clark and John Haskins. The purpose of the company was "removing the obstructions in, and opening and improving the stream between the Chain Lakes and Nahmakanta Lake----and the Nahmakanta River between Nahmakanta Lake and Pemadumkook." They also had the right to build dams at the outlets of Nahmakanta Lake and also first, second and third lakes. From Jackson's account of his trip previously quoted we find this fact:

"On the 26th (1837), we met with Col. Webster of Orono, who was going to Nah-me-can-te- stream, to clear out certain rocks that interrupted lumbering operations." ²¹

I have been unable to find any other reference to this company. The charter must have lapsed for on February 21, 1867, was incorporated another Nahmakanta Dam Company. The incorporators were: Caleb Holyoke, Nathan C. Ayer, Theo. C. Woodman, Charles E. Dole, John A. Peters, Ebenezer S. Coe, Gilman P. Smith, Henry E. Prentiss, Gorham L. Boynton, James Dunning, Wyatt Weed, Samuel F. Hersey and James F. Hanson. They had the power to build dams at the foot of Nahmakanta Lake, Rainbow Lake and Pollywog Lake. Dams at these three points are still maintained. The company is now a subsidiary of the Penobscot Chemical Fiber Company.

Careful search has not brought to light any further

material about this period. Lumbering was increasing, difficulties were being multiplied and the method hit upon to overcome these obstacles was cooperation in the form of the Penobscot Log Driving Company.

II The Period of Cooperative Effort 1846-1903

The cost of small drives, the difficulties encountered in controlling the water to suit the needs of many drives, and other considerations, brought about the incorporation, in 1846, of a mutual organization to handle the drives for all operators landing logs on the West Branch of the Penobscot River from Chesuncook Dam to the point where the East Branch and the West Branch unite. This organization, the Penobscot Log Driving Company, delivered the logs to their destination, usually the Penobscot Boom above Old Town. All owners of logs to be landed on this section of the river were required to file with the clerk of the company, on or before the fifteenth day of May, a statement of the number of board feet and the marks thereon. Any person owning timberland or being engaged in particular lumber operations on the West Branch of the Penobscot or its tributaries was eligible to membership in the company. Every member owning timberland was entitled to one vote and each operator was allowed one vote for each six-ox team engaged in hauling timber or logs on the West Branch or its tributaries. At a meeting held on February 12, 1866, it was voted "that a team of four horses be an equivalent of a six ox team

entitling a person to a vote." The following year the voting represented 471 horses and 47 oxen.

The cost of the drive was calculated and assessed among the log owners. Should a mistake be made in collecting too much, the balance was returned. It was strictly a mutual company. The good of the industry was considered and not personal profit. The drive was let or "bid off" each year. When the bids were too high to meet the approval of the directors, a Master Driver was hired to take charge and the company itself had the drive. This happened eighteen times in the first fifty years. The salary for the Master Driver was \$500 until the Civil War; then it was \$700 until 1868 when it went up to \$1000.

In the meeting of February 12, 1859, it was "voted that a clerk be appointed for the drive, who shall have charge of all property belonging to the company and keep an account of all labor performed, make all disbursements on the drive and make a report of all his doings to the directors, together with a schedule of the property remaining after the drive was closed." Though no complete record of the clerks is available it is known that Amos Bailey clerked for Aaron Babb for \$2.50 per day in 1860 and that Alden B. Weed received \$3.00 per day from John Ross in 1864.

The office of clerk and treasurer of the company was an important one. The service rendered by this officer deserves recording:

Charles H. Thaxter	1847-1854
George R. Smith	1854-1860
Abram Moore	1860-1864
Albert W. Paine	1864-1868
Abram Moore	1868-1889
T.S. Moore	1889-1897
(Brother of Abram)	

George S. Chalmers
John H. Rice
Charles H. Adams

1897-1901
1901-1903
1903-Still in office.

Improving River for Driving

When the P. L. D. , as it is usually called, was organized, few improvements on the river had been made. There was a dam at the foot of Chesuncook Lake (built in 1834 by W. J. Johnston for the Chesuncook Company) and another at North Twin Lake, probably built about the same time. It was being replaced or rebuilt during the summer of 1846 when Thoreau visited it. James Jenkins presented the new company with a claim for the sum of \$167.65 for blowing rocks in Ripogenus in 1845 and 1846, so there had been some work of that kind.

In 1865, the sum of \$5,000 was raised for repairs on Chesuncook Dam made by John Town of Brewster. That year a committee, consisting of Gorham L. Boynton, Lysander Strickland and George W. Pickering, were directed to cause a dam to be built across the "Ripogenus Dry Way" and the "West Arch." The next year \$5,000 was expended "in removing obstructions and deepening the channel for the purpose of improving the navigation of the river between Chesuncook Lake and Nicatou." In 1874 James L. Smart acted as agent for the company to repair Chesuncook Dam and gates and to blast rocks and make other improvements between said dam and Arabajejus Lake. Mr. Smart was employed again in 1878 to blast rocks in Ripogenus Falls. The dams were frequently repaired but a complete record of these repairs is not available.

The introduction of bow chains is probably recorded

in the following vote of February 17, 1886, "that the company take 198 boom chains and pay the cost here, same purchased by contractors last year." A year later the company voted "to trade with E. E. Ring for boom chains."

An additional act which passed the legislature of 1883 gave the right to build dams at the outlet of Caucomgoc Lake and Millinocket Lake.

The dam at the foot of Ripogenus Lake was authorized by the P. L. D. Company on August 24, 1887. John Ross was on the building committee and W. J. Johnston built it.

In connection with the dams, it is interesting to note that at a meeting held on March 17, 1892, it was "voted that the treasurer be instructed to inquire about insurance on North Twin Dam and what it would cost." Certainly this was the first serious consideration of the subject of insuring dams on the Penobscot River.

Towing Boom on Lakes

The P. L. D. began taking logs from the head of Chesuncook Lake in 1856. The logs had to be boomed and brought down the lake by hand. That is, a crew rowed ahead with an anchor and dropped it. The rope attached was reeled in by means of a capstan on the head-works raft. In favorable weather the crew worked three days and three nights to warp a boom down the lake. This was hard, slow and expensive work.

On February 11, 1869, we find the following record on the company's books showing that they were looking forward to a better day: "voted on motion of Hastings Strickland that a committee of five be chosen to consider the matter of placing steamboats on the Chesuncook and Lower Lakes for the purpose of lessening the expenses of the drive--and report to this company at a special meeting." Nothing resulted from this investigation for twenty years, (steamboats had been used for twenty years or more on Moosehead Lake, however.)

The next mention of this subject in the records is found under the date February 15, 1887, and reads as follows:

"voted that the directors are hereby instructed and authorized to use all honorable means to defeat the bill of H. H. Page in relation to exclusive rights to navigation on the lower lakes." They were looking forward to having a boat of their own there.

In 1889, W. H. Strickland, John Morrison, John Ross and Cornelius Murphy were appointed to inquire into the expense of building steam boats for Chesuncook and North Twin lakes, and the size and power necessary for such boats. A boat named the John Ross was built at Northeast Carry in 1890 and run down the river to Chesuncook Lake. For its use the contractors, Cornelius Murphy and James L. Smart, paid \$2,000 in addition to the wages of the crew. The John Ross was replaced by the Ansel B. Smith which was built in 1902, the same engine being used in the new boat. The A. B. Smith continued in service on the lake until 1927.

On November 29, 1892, John Ross and F. W. Ayer were

appointed a committee to decide in regard to building a steamboat for use on the Lower Lakes. This was apparently built in 1893 and named the F. W. Ayer.

The operations of the P. L. D. above Snad Pond ceased with the chartering of the West Branch Driving and Reservoir Dam Company in 1903. In closing this chapter of improvements on this section of the river, it is fitting to reproduce as far as we are able, the names of the men who "had the drive:

1848	Aaron Babb
1849	E. Gullifer & O. A. Gilman Main Drive Richard Hinman & I. J. Palmer from Heater's below North Twin Dam, old logs of 1848
1850	Aaron Babb
1851	Jesse Wadleigh
1852	Samuel Braley
1853	Lysander Strickland
1854	George Smith
1855	Samuel Braley
1856	Unknown
1857	Aaron Babb
1858	Aaron Babb
1859	Aaron Babb
1860	Aaron Babb
1861	Aaron Babb
1862	Unknown
1863	Aaron Babb
1864	John Ross
1865	John Ross
1866	John Ross
1867	John Ross
1868	John Ross
1869	John Ross
1870	Hosea B. Maynard
1871	John Ross
1872	James L. Smart
1873	Henry Davis
1874	John Ross
1875	John Ross
1876	James L. Smart
1877	James L. Smart
1878	James L. Smart
1879	S. W. Hodgdon
1880	John Ross
1881	James L. Smart
1882	E. H. Hunting "for self and James L. Smart"
1883	E. H. Hunting and John Ross
1884	E. H. Hunting and James L. Smart and John Ross
1885	John L. Ross for self, E. H. Hunting and James L. Smart
1886	E. H. Hunting

1887 Cornelius Murphy for John Ross, James L. Smart
and E. H. Hunting
1888 Cornelius Murphy
1889 Philo A. Strickland
1890 Cornelius Murphy and James L. Smart
1891 Cornelius Murphy and James L. Smart
1892 Charles W. White (Old Town)
1893 Isaac A Terrill
1894 Cornelius Murphy
1895 Cornelius Murphy
1896 Isaac A Terrill
1897 Isaac A Terrill
1898 H. F. Ross & Co.
1899 F. W. Ayer
1900 Fred A Gilbert
1901 Fred A. Gilbert

SOURDNAHUND DAM AND IMPROVEMENT COMPANY

Sourdnahunk Stream has its source in the lake bearing the same name and follows a course almost due south for a dozen miles or more. Some eight miles below Ripogonus Dam it enters the West Branch of the Penobscot River. During the spring freshets or immediately after heavy rainfall, this stream is swelled by its mountain tributaries into a rushing, plunging, roaring torrent. At other times, the water glides over smooth ledges, ripples over the shallow rocky places, flows quietly through gravel channels among the alders until it comes to steep pitches where it gathers momentum to make a grand rush over the falls into a pool where it foams and pauses until the froth has vanished and only a few bubbles are left as it glides on toward the main river. The course of the stream is through scenes of natural beauty not surpassed in Maine. It passes between Double Top and The Brothers, its valley separating them from each other, on past O J I Mountain, with occasional vistas of the not far distant Katahdin. For miles it seems that a new view of Double Top appears at every turn.

In conversation with Mr. George P. Longley of Old Town with whom I spent several evenings during the winter of 1927-28 when we chanced to meet at Cooper Brook, Grant Farm and other places, I learned that Foss & Knowlton built a road down the Sourdnehunk to the West Branch long before the country was opened up by the construction of the dams. He said the old-timers marvelled at the expense that was incurred in making such a costly road, as it had to be built up with logs in some places. He said logs were put on Sourdnehunk and landed on Cuxabexis and on Telos Lakes before that time. (Mr. Longley's grandfather, Mr. Josiah Pi Longley of Milford cut and landed logs on the lake that bears his name previous to the gold rush in '49 when he went west).

No one seems to know anything about the Gibson clearing made on the West Branch near the mouth of Sourdnehunk Stream. In the notes taken on the Jackson Survey of 1837, James T. Hodge (p.54) makes the following note:

"We came to Gibson's clearing of 80 acres on the eastern side.....The place is not inhabited. A little above this clearing, on the eastern side, comes in the Sowadnehunk, so named by the aborigines from its running between mountains."

Sourdnahunk's rugged character had kept her in solitude.

An occasional Indian trapper or explorer had visited the region but the lumberman, before he began work in this region, had waited until he could conquer the stream for driving purposes. Even after the dams were built which made log driving possible, sourdnahunk logs were recognizable as far as they could be seen. They were distinguished by battered ends, large numbers of scars and the absence of bark, for the logs that came out of Sourdnahunk Stream were scoured with gravel and roused by granite rocks.

SOURDNAHUNK DAM & IMPROVEMENT CO

Organized

~~prior to the building of the first dam, only one operation~~

~~was~~ In the seventies, Moses Wadleigh of Old Town cut pine logs for clapboards at the lower end of the stream, sawed them into four foot lengths and drove them about a mile to the West Branch. ~~the logs were later~~ ^(see inset) People interested in ~~these~~

timberlands from which the timber could be hauled to Sourdnahunk Lake of Sourdnahunk Stream petitioned the legislature for the right to incorporate for the purpose of improving the navigation of Sourdnahunk Stream for log driving. They received a charter from the legislature of 1878. The name of the corporation was, and still is, the Sourdnahunk Dam and Improvement Company.

It was authorized to "construct and maintain a dam or dams, with booms, side booms, sluices, and other erections, and to make any other improvements necessary to facilitate the driving of the stream." It was given the right to collect toll for the passage of all logs and lumber through and over the improvements made by the corporation.

The first meeting was held at the office of the Bangor Foundry and Machine Company, 10 Central Street, Bangor, on September 5, 1878. Charles V. Lord was chosen chairman, and Franklin A. Wilson, clerk for the meeting. Mr. Lord and Mr. Caleb Holyoke were appointed a committee to prepare a code of By Laws. At the meeting of January 20, 1879, (the attempted meetings of September 30, October 14, November 18, and January 15 having failed to have a quorum) Caleb Holyoke was elected president, an office which he held for years and in which he was followed by his son Franklin H. Holyoke. Charles Veasie Lord was made clerk and held this position until his death in 1905 when he was succeeded by hisson Nathaniel Lord.

TOLL DAM

The story of the activities of the first year are told by Thomas Gibbon. He was hired by Charles E. Dole in Bangor and went to Mattawankeag. On June 20, 1879, four batteaux, poled by eight men, started up the West Branch with supplies, and about fifty men proceeded to Medway and followed the spotted trail up to Sourdnahunk on foot. (During the winter. some supplies and equipment had been taken in to Lily Pad and Kidney Pond.) The men who walked in arrived first and at once set to work to clear a camp ground and erect a shack at the site of the so called Toll Dam. A head wind had held up the batteau men for a day and the carries were hard to make. The eight men had to take their supplies on their backs across all the carries and then take the four batteaux. It requifed all eight men using poles to carry each batteau. Everything was toted on their backs from the West Branch to the camp but this was done with the aid of the big crew.

Though Toll Dam has been rebuilt three times, the original foundation is still there. It was put together without iron, $1\frac{1}{2}$ " and 2" augers being used with juniper pins. Lorenz Moore had charge of the construction work. The men worked from daylight to dark with four meals a day. They received \$18 to \$24 per month, with the exception of two men who received \$26. The food was cooked out of doors without stoves; the menu consisted largely of beans baked in the ground, codfish, corned beef, trout and some pork.

All the dam work done that year was in charge of Fred Gay who had come from New Hampshire with Captain Soule. They had cleared a stream in New Hampshire with dynamite and used this explosive on Sourdnahunk. This was the first time, so far as it has been possible to discover, that dynamite was used in the woods of Maine. Two batteau loads of dynamite (called " dulon " or later " Rent Rock ") came from Old Town. The railroad would not accept it and no one would take it with a team, so that it had to be poled up the river all the way. The men had a hard time especially toting it across the darries.

SOURDNAHUNK LAKE DAM
To determine the height of the dam to be built at the foot of Sourdnahunk Lake, Captain Soule came up bringing Joseph Taney, a Bangor druggist whose father was a civil engineer. Both men were large and heavy. The trip had been hard on them and the problem of getting from Toll Dam to the Lake was not easy. Ash shoes were put on the batteau to keep the rocks from destroying it; supplies and the two men were loaded in and six men, Jack Dugan Jack Jordan, Paul Peters, Tom Gibbons and two Frenchmen hauled it up the stream, Captain Soule seated in a chair made from a barrel. The black flies were thick which did not

improve ~~the~~ conditions at all. At times, the batteau had to be jauled through alder growths. Mr. Taney determined the height of the dam and returned to Bangor.

Part of the crew was taken off the work on the first dam and started for the Lake. They pitched tents and swamped a road as far as they could in a day, and then moved their camp ahead the distance gained. The lade dam was built that summer by Zack Moore.

The early days were far more profitable, so far as the corporation itself was concerned. Not all the capital stock was subscribed and the stockholders were assessed 50% the first year and then had to hire \$6,800. Of course it should be born in mind that this corporation was not the originated with the idea of making money but with the purpose of making it possible to get the lumber out to a market. It was found that another dam would be necessary and the next year it was built at the slide.

~~SLIDE DAM~~
Little is known about the great slide which came down the side of The Brothers, going a southerly direction until it hit O J I Mountain and then turned to a westerly toward Double Top Mountain, filling Sourdnahunk Stream. It is thought by some to have taken place during the Civil War, but the men who went up through there in 1879 thought that it could not have been more than five or ten years before their trip ~~xxxxxx~~. It was a big slide, estimated by W. J. Curran, A. V. MacNeill and Thomas Gibbon to be nearly four miles long. The maps of this region would indicate that this estimate is rather high but the figure will convey some idea of the size of this avalanche.

Sourdnahunk Stream worked its way around the end of the slide, making a channel through the course gravel.

The slide on Double Top came at the head of the Pond about 1912 or 1913. It occurred in the night and frightened the men in John Finkle's camp for the Great Northern Paper Company. People who travel the tote road are sometimes under the impression that Slide Dam received its name from the slide on Double Top, which is plainly to be seen, but such is not the case.

The first dam was built by beavers and flowed a considerable area. To drive long logs through without a dam was practically impossible. At a meeting held in Bangor August 23, 1880, it was voted " that the company proceed to erect a dam at or near the slide and cut down the apron of the upper lake dam, clear the stream and blow out what rocks considered necessary to improve the stream. " From another sources it seems that E. W. Loveland built the dam that same year. Bob Rogers took charge of the construction work. It soon went out and has never been successful. This is all "made land" the result of the slide, and after the frost begins to come out, it gives away. On July 10, 1882, Zack Moore reported to the directors that " slide dam, so called, had blown and must be repaired also that there must be some blasting at Windy Pitch and several other places ". This second dam lasted only two years for the minutes of the meeting held July 3, 1884 read " voted that the directors be authorized and instructed to employ some suitable person to repair the slide dam (60 feet of same having been carried away) and to make other necessary repairs to the company's works also to send some one to Sourdnahunk to look after the company's property until the crew is sent there to make repairs. "

This dam was rebuilt again in 1895 by W. J. Curran. It went out again in 1915. It probably will not be built again as it is not considered necessary for the driving of four foot wood. However, the beavers have persisted and still maintain a dam here. The photograph of the dilapidated Slide Dam shows the slide on Double Top.

Early Tolls Collected

The first toll was collected on September 9, 1880, for the cut by E. W. Loveland for C. E. Dole. That fall, toll was collected on logs cut by Zenus Littlefield for I. M. Hodgkins Co. On June 11, 1881, C. E. Dole paid toll on spruce and pine logs cut on T 3 R 10 in the winter of 1879-80. In the summer of 1882, toll was collected from Charles E. Dole, Charles V. Lord and J. F. Reed and the following year from the Veazie Heirs. Of this number, Messrs. Dole, Lord, Soule, and Veazie Heirs were stockholders. Tolls were collected in 1887 from Hersey and Rogers and from White and Chadbourne; in 1889 Charles H. Dudley is on the records.

Routes to Sourdnhunk

The route by which supplies were brought in is interesting. We have already noted that the supplies and men used during the building of the original dams came by way of Mattawankeag and thence up the West Branch. E. W. Loveland brought his supplies in 1880 in by another route. They were landed at Mattawankeag, taken by stage 38 miles to

Patten and from Patten by way of Shin Pond, Sebois Farm and Trout Brook, a distance of 55 miles to Sourdnahunk Lake Dam. There was a tote road as far as Dwelley Pond which is only three miles from the foot of Sourdnahunk Lake. Bob Rogers led the horses through the woods after they left the tote road. Soon after this the tote road was completed. Soule and Dole used to bring their men in by way of Katahdin Iron Works and Grant Farm, then up past Soper Brook; there is a story that a crew got lost on the way in and for two days had to eat whole corn. The Great Northern Paper Company sent its supplies in part by the way of Patten and part by the tote road from Millinocket parallel to the West Branch and then along side of Sourdnahunk Stream. The turnpike road built by the Great Northern Paper Company from Greenville to Ripogenus was extended by stages to Frost Pond, then to Duck Pond and reached Sourdnahunk Stream at a place about three miles from Sourdnahunk Lake by the fall of 1922. The operations in that region received their supplies over it that fall.

After 1901

Beginning with 1901, (the Sourdnahunk Dam and Improvement Company was then 23 years old), the names recorded in the books of the corporation change. The Great Northern Paper Company had begun to buy timberland and stumpage in the Sourdnahunk region. As it acquired land, it acquired stock in the Sourdnahunk Dam and Improvement Company. As the years have passed, the Great Northern Paper Company's interests have in-

creased, until now it owns practically all of the stock and pays practically all of the tolls; it is still operated on the original principle that the corporation should be owned by the people who have the timber to be taken to a market. Nathaniel Lord was elected president in 1906 and Fred A. Gilbert, clerk and treasurer. Serving with them on the Board of Directors was A. Ledyard Smith. Mr. Fred A. Gilbert served as president for many years; when he left the Great Northern Paper Company in 1929 his successor, Mr. William Hilton, became president. Mr. Bryan L. Seeley became the clerk and treasurer when Mr. Gilbert became president and still serves in that capacity.

During this period, various men have been employed to make repairs on the dams. The records show that in 1905 Charles R. Goodwin was made agent to repair the dams and the following year Percy Johnston did the work. In 1908, Daniel Chadbourne was hired for the purpose of repairing dams and building abutments. In the fall of 1911, W. J. Curran made a report to the directors as to the condition of the dams. Mr. Curran took charge in this region for the Great Northern Paper Company from 1911 to 1919. J. E. Sargent built the dam on Little Sourdnamunk Stream in 1916.

The change from long logs to four foot wood was made in Sourdnamunk with the blowing of Slide Dam in 1915. G. E. Gilbert had cut four foot wood in 1912-13 on T 1 R 10 (in the vicinity of Norcross) and also during 1913-14. This was the first short wood cut by the Great Northern Paper Company. When Slide Dam went out, W. J. Curran was able to drive the

long logs from Rocky Rips down, but there remained some above there which were cut into four foot lengths that summer and driven the next year.

Al Edgerly ran two camps here during the season of 1919-1920 in connection with his operation on Soper Brook. In the spring of 1920, W. J. Curran took the drive on a contract and drove it in 13 days which was remarkably quick time. Mr. George L. O'Connell succeeded Mr. Edgerly as superintendent of Sourdnhunk Operations and had charge of the operation and drive the season of 1922-23.

From 1903 to 1923, the Great Northern Paper Company had drives in all but four years or five years. C. Murphy and Son paid tolls in 1906, 1907, 1908, 1909 and 1911. Other names include: The Katahdin Pulp and Paper Company, J. M. McNulty, George Chalmers, George A. Gray, J. Largay and Sons, and M. B. Wadleigh.

CANADA FALLS DAM

Canada Falls dam on the South Branch of the West Branch of the Penobscot illustrates how a dam rightly placed can change a river from being one of the most difficult to drive into one of the easiest. The old river was narrow and crooked and flowed through an alder growth. About three miles from the present dam there was a turn in the river where it made an almost complete circle, known as an Ox Bow. No wind was favorable to a river driver at this point, since a wind that would be fair on one half of the Ox Bow would be a head wind on the other side. The following letter written by Mr. Fred A. Gilbert on January 4, 1927 gives a brief account of the early dams. Mr. Gilbert drove the South Branch long before the organization of the Great Northern Paper Company.

I find in looking up the records of the Canada Falls Dam Company that the charter granted was approved by the Legislature March 5, 1870, and the reorganization took place the 15th day of July 1870. The incorporators were W.H. McCrillis, F.W. Baldwin, F.H. Dillingham, Edward Connors and Henry E. Prentice, the last party named was made president. Soon after this organization was completed a dam was built on the site below Bog Brook about a half mile, and a roll dam was built at the next ledges below the present Canada Falls dam. Both structures were made of the very best materials and workmanship. The spilling was about all cedar and all of the top work above low water around the gate sections was hewn timber nicely fitted. Toll collected at that time show that the dam was used but very little. Logging on the South Branch at that time evidently proved a failure. Such operators as Ross, Connors and Aaron Babb had operations for a very short period and it was commonly known that they all lost money. These dams were washed out and any further attempt at development was suspended until about the year 1888 or 1889. A company

was formed by Edward Stetson representing George Stetson Estate, my father and myself; and dams were built by that company at Sandy Bay, Jones Pond, Horseshoe Pond and Canada Falls. The dam at Canada Falls was built above the Prentice dam site about the year 1890 by George Smith of Brewer and went out in the spring of 1891. It was rebuilt that fall by Charles Hathorn and blowed in the spring of 1892. It was then repaired by John Lawler and about the time he was closing the hole a rise of water came and a hole occurred and Lawler picked up and left. Jasper Johnson was then sent to finish the dam; he completed it and it stayed there until rebuilt by W.L. Johnston. It went out that summer and was rebuilt on its present location during the winter of 1912-13 by a man named Willard Reed under James Swan, Everett Amey being engineer.

The dam built in 1912-13 had a head of 26 feet of water which flowed out the narrow crooked channel of the South Branch and Alder Brook making the broad Canada Falls Deadwater. The accompanying sketch shows just what was accomplished by this dam. The old river is indicated by the narrow channel made of dotted lines.

In 1922 steps were taken looking forward to the building of a new dam here. Huge concrete wings were built parallel to the wooden dam about one hundred feet down the river. The gate section was not added. One of these wings was made 291 feet long and the other ²⁶⁷~~174~~ feet long with a gap of 174 feet where the gates would come. This work was done under the supervision of J. E. Sargent with H. E. Severance in charge. (It should be borne in mind that this dam company was ~~partly~~ acquired by the Great Northern Paper Company ^{Sept} after its incorporation).

In the winter of 1926-27 the old gate section of the wooden dam was removed and rebuilt on the same site (172 feet) with wings from the concrete section to the gate section being built instead of continuing the wooden dam across the river as before.

In the new gate section only one deep gate was made ~~were~~^h as in the old section there were two; the new sluice gate ~~is~~^s only 6 feet whereas the old one was 12 feet. The timbers were mostly pine, the spilling o' cedar was cut three sided. A portable saw-mill was set ~~up~~^y and all ~~the~~^{all} wall timbers, band timbers and gate timbers sawn or sided. C. Max Hilton supervised the construction.

SEBOOMOOK DAM COMPANY

Seboomook Dam built in the winter of 1926-27 is the largest wooden dam on the West Branch of the Penobscot. It is located at Seboomook Falls, sometimes called Henderson's Pitch; a man by the name of Henderson lost his life there. The crew were so sure of recovering the body that they sent down river for a coffin which arrived, but the body was never recovered. The coffin was left on the edge of the eddy at the foot of the pitch for nearly twenty years. It was here that Rodney Southerland came near losing his life when a jam on which he was working, hauled. Holman Day's poem, MISTER WHAT'S-HIS-NAME OF SEBOOMOOK may have reference to an entirely different incident. At any rate more than one river driver lost his life here before the first dam was built.

The Seboomook Dam Charter was granted by the Legislature of 1893 and approved by the Governor on February 9 of that year. The incorporators were Eugene Hale, Daniel F. Davis, Frederick T. Bradstreet, Lewis C. Moore, Joseph S. Bradstreet and Clarence Hale. At the first meeting of the incorporators, it was voted to build dams and make improvements and the work was begun that year. Seboomook Dam was not completed until 1894 or 1895. The first drives taken out of the North Branch Country by the new corporation were delivered into Penobscot booms. Later they sent their logs down the Kennebec waters by mechanically getting them from one water shed to the other. The dam flowed water through

the canal into Carry Pond; the amount of water allowed for driving purposes was about six feet above the dead-head. The logs could be taken into Carry Pond to a point about 1,000 feet from the highest land between the Penobscot and Kennebec waters. Here an endless chain in two sections, driven by two steam engines, was built. The logs were taken up the grade by this method and tumbled into a wooden sluiceway which was about two miles long and which emptied into Carry Brook not far from Moosehead Lake, about opposite the present Seboomook Farm House.

The year that Canada Falls Dam was built, 1912-13, Seboomook Dam was rebuilt by the Great Northern Paper Company which had some years before bought out the old corporation. The work was carried on by James Swan who had Everett Amey as engineer. L. E. Little was resident engineer for Mr. Amey, and he in turn was assisted by C. S. Cleaves, L. W. Smiley, W. H. Wentworth and H. W. Wright, (these four men were not on duty at the same time); during the previous April the preliminary surveys had been made and the flowage "run." William Hilton was one of the men who worked on this job. That year Sam Whyte built the road into the dam from Seboomook in order to facilitate the work. Charles Green took charge of the construction work for Mr. Swan. Work began in the summer of 1921 and was completed the following spring.

All of the timbers were hand hewn except the face

planking and toe piling which came from down river as did the yellow pine used around the gates. About 600,000 feet that was left from the drive of 1912 was used in the construction work. The remainder was cut in the near vicinity, at Burbank and Elm Stream.

Part of the crew were kept in the present boom house, which was then new, and the rest in a set of log camps on the south end of the dam. The foreman lived in the present watchman's camp.

The old dam was 308 feet long and had a head of 28 feet, i.e. 10 feet more than the original dam had. It rested on part of the abutments of the original dam. It had 8 shallow gates 8 x 14, 4 deep gates 8 x 10, 1 log sluice 14 x 14, 3 spillways 5 x 10, and a drinki sluice 5 x 30.

The first timber of the new dam was laid on October 25th, 1926 and the dam was ready for the spring drives. Some idea of the amount of work done in that period can be gathered from the amount of material used. It is estimated that 1,000,000 board feet of timber, 14,000 cubic yards of rock, 21,000 board feet of hard pine for gates and 25 tons of iron were needed. The dam is 80 feet across the base at the widest place. It is built on solid ledge which necessitated the removal of 2,500 cubic yards of seamy and loose ledge, which was later used for ballast. Two steel derricks of $7\frac{1}{2}$ tons capacity each, with 83 foot masts and 75 foot booms, were used. There was an overhead cable used to pull the timbers from one derrick to the other.

An Ingersoll Rand Compressor was used in the nearby quarry getting out rock for ballast. The timber used was peeled hemlock and pine, cut at Nigger Brook Camp by one of Mr. Sargent's crews and at Burbank by Joseph Paquet, Sr. C.J. Sargent was in charge of hauling the timber to the dam. Robert Hancock ran the tractor hauling these logs. E.L. Larsen, who did the scaling, reported that several logs scaled above 800 board feet, the largest being 1,000 board feet.

The dam has a tractor road across the top, and holds a 28 foot head of water. There are 6 deep gates 8 x 10, 1 sluice gate 14 x 14, 1 drift gate 20 x 8, and a spillway 200 x 3.

To accommodate the 150 men and 20 horses needed in the construction of the dam, it was necessary to build a set of camps. They were constructed on the north bank of the river opposite the boom house. The camps were all made of boards and covered all over with tar paper; no logs were used. The set of camps consisted of two bunk houses, a cook room, an office and foremen's room, a filer's camp and wash room, a blacksmith's shop, a tool house, a dynamite house, a garage, and a hovel with a hay shed in the center.

THE BRADSTREET CONVEYOR (SEBOOMOOK)

The West Branch of the Penobscot River comes very close to Moosehead Lake at both Northwest Carry (Seboomook) and at Northeast Carry. In fact, if Moosehead Lake were to be raised six feet, its waters could be turned into the West Branch, or if Seboomook Dam were six feet higher the West Branch waters would flow into Moosehead Lake. An early attempt was made to secure the right to divert the Penobscot waters into Moosehead Lake but it failed. The attempts since made to take logs over the small and narrow height of land that divides these two water-sheds deserve recording.

Sluiceway Proposed in 1839

William Boyd and William Moulton, in January, 1839, petitioned the legislature for an act to incorporate the Seboomook Sluiceway Company. In their petition they represented that "they are interested in timberlands lying on the upper waters of the Penobscot River, northwesterly of the head of Moosehead Lake. That the obstructions and obstacles in Penobscot River below said lands, are so numerous and its course so circuitous and unfavorable, as to prohibit the use of that river for running the timber to market from the lands in that quarter. These causes have prevented all lumbering operations on these lands, and rendered a large amount of valuable property unavailable.....These evils may be remedied and these difficulties avoided by opening and constructing a sluiceway for the passage of logs, from the waters of the west

branch of Penobscot River into the head of Moosehead Lake or its tributary streams.

"By doing which, a direct and convenient avenue would be opened, through which valuable timber in that quarter, now locked up, may be carried to market....."

William Anson, surveyor and civil engineer, was commissioned by the Board of Internal Improvements under the order of the legislature to explore and survey a route for the proposed canal. His report was dated February 19, 1840. He reported: "The different localities, features and character of this section, are highly favorable to the object in view, presenting great facilities for opening the desired communication between these two waters."

In the report of this survey, it is interesting to note that what is now commonly called Carry Pond was then known as Meadow Pond, described as lying "south of the Penobscot River, and connected with it by a small stream about 80 or 90 rods in length, chiefly formed by the back water flowing into it from the river, during high water and freshets." Seboomook Falls were described and spoken of as the "so-called Grand Falls." An island a mile long, separating the river into two equal parts was spoken of as Hawk Island. This island was covered to a depth of five feet during freshets and now by the dead-water held by the dam when it was built. This is now a holding ground and practically all of the ten piers were

built on this island. Carry Brook was referred to as "northwest inlet stream."

The proposed sluiceway was to be dug from Meadow Pond across the "Quebec road" to northwest inlet stream. Sorting booms were to be built at Hawk Island. The sluiceway was not to exceed six feet in general width at its usual water level.

A remonstrance of James Crosby and twenty others against the Seboomook Sluiceway was prepared together with a Report of Japheth Gilman and others (Benj. S. Deane and Geo. R. Herrick) on the Seboomook Sluiceway. The opposition maintained "there is great danger if such a connection is made as the petitioners ask for, that it would divert the waters in such a quantity as would be highly injurious to those interested on the Penobscot." It might so lessen the water as to injure the driving of logs as well as the mill power on Penobscot waters. Mr. Gilman's report was controversial in the nature of it. He represented that the digging of this sluiceway might start a water route that would be disastrous in its results, should a freshet enlarge it and a permanent and irremediable diversion of the waters result.

The Bradstreet Project 1893

The legislature of 1893 passed an act to incorporate the Seboomook Dam Company. The incorporators were Eugene Hale, Daniel F. Davis, J. S. Bradstreet, F. T. Bradstreet, Clarence Hale and Lewis C. Moore. In section 1, the company was authorized "to erect and maintain dams, side dams, piers and booms at, in along and near Seboomook

Falls, so called, on the west branch of the Penobscot river."

Our interest at this time is located, however, in section 7. "In case logs are taken across from the West Branch to Moosehead Lake by a carrier or otherwise, or are stored for that purpose, there shall not be on that account any detention of logs or lumber, or of the water of said West Branch, to the detriment of parties interested in logs or lumber below said dam or to be run over said dam, but parties taking logs across to Moosehead Lake shall not be compelled to sort logs nights."

This brings us to the Bradstreet project for taking logs from the West Branch to Moosehead Lake. J. S. and F. T. Bradstreet had a mill in South Gardiner. As the largest timber had been removed from the territory most accessible for them, they wanted to secure timber from the upper part of the West Branch and transport it across to Moosehead Lake, have it towed down the lake to East Outlet and driven down the Kennebec River. Work was begun in 1893 on a conveyor-sluciceway. It was the first of its kind in Maine. Ira D. Peavey of Bangor was secured to build it. A disastrous fire took place and the second year it had to be rebuilt, Fred Bigney of Greenville doing a half mile of the work. The sluciceway and conveyors were operated first by Lewis C. Moore and then by Sullivan Newton. In all, the conveyor-sluciceway operated for eight years, *during the last six years,* Mr. William F. Henderson (now living in Hallowell) took charge. The operation ceased with the

purchase of the property and dam company by the Great Northern Paper Company soon after it was organized.

The following description of the project was given by Mr. Henderson. Two conveyors, a sluiceway, and a dam on Carry Brook were used. The first conveyor, operated by a steam engine, took the logs from Carry Pond, Penobscot waters, a distance of 600 feet, by means of an endless chain with iron dogs at intervals, and dumped them on to a second conveyor, also 600 feet long, which was operated by another engine and delivered them into the sluiceway which was two miles long. The sluiceway was filled with water from the dam on Carry Brook (earlier called Northwest Inlet Stream).

The sluiceway was V-shaped, like a great hog's trough. It was built of plank, sawed at South Gardiner and sent by rail to Greenville and thence by boat up the lake. The bed timbers (which can now be found at intervals of ten feet) and the X-shaped horses that supported the sluiceway were hewed on the job. In some places, the sluiceway rested on the ground; in others, it was twenty feet above.

About forty men were needed to run the operation. There were twenty men on the sluice whose job it was to keep the logs from jamming and to signal back when a jam occurred. The rest of the crew included bosses, sorting crew, engineers, firemen, blacksmiths, cook etc.

During the eight years of operation, the average number of board feet of spruce, pine, and cedar put through the sluice each year was eight to ten million, with thirteen million board feet as the record year. The logs came from

Dole Pond, Dole Brook and St. John Pond way. They were mostly from Bradstreet's own operations, but Mr. Henderson recalled their buying from Murray Cunningham and one year from Stetson and Gilbert (Fred A. Thomas).

About two years before the operation was discontinued, a second fire occurred. It burned about 1000 acres and damaged the sluice. Men were kept bailing water from the sluice down its sides but for a quarter of a mile one side of the sluice was charred so that it had to be replanked. The fire, which continued for two nights and one and a half days, was finally put out by rain.

The conveyors were dismantled by the Great Northern Paper Company and a forest fire destroyed the sluiceway. All that is now to be found is the dam on Carry Brook, the bed timbers for the sluiceway and, at low water, the remains of the conveyor foundations in Carry Pond.

The Bradstreets sold their sawmill to the South Gardiner Lumber Company. Later the Jackman Lumber Company bought it and moved it, building and machinery, from South Gardiner to Jackman where it is now located.

Narrow Gauge Railroad 1914

In 1914, a narrow gauge railroad was built from Carry Pond to the mouth of Carry Brook for the purpose of hauling railroad ties cut on the Penobscot watershed into Moosehead Lake. This was built and operated for two years

by the Boyd and Harvey Company. In the fall of 1916, John E. Lamb of Rockwood took up the steel rails and moved them, together with the locomotive, cars and all other equipment, to Kineo Station. Mr. Lamb loaded this equipment on to scows and by means of his steersboat, the Violet, towed it down the lake.

In concluding this story of attempts to convey logs from the Penobscot River to Kennebec waters, mention should be made of the standard gauge railroad track laid in 1921 by the Great Northern Paper Company from Seboomook Wharf to Carry Pond. This was used to transport the rolling stock of the Seboomook Lake and St. John Railroad from Moosehead Lake to Carry Pond enroute to its own railroad.