

To be a canal-bout. operators

① investment
② operators expenses

New York State. Legislature. Assembly Document (AD) 40, January 31, 1879. Annual Report of the State Engineer and Surveyor of the Canals of the State (Albany, N.Y.: Charles Van Benthuyssen, 1879), pages 27-32.

STATE OF NEW YORK.

ANNUAL REPORT

No. 40.

Ballhead bond
low bond

IN ASSEMBLY,

OF THE

JANUARY 31, 1879.

State Engineer and Surveyor

COMMUNICATION

FROM THE SUPERINTENDENT OF THE INSURANCE DEPARTMENT.

OF THE

STATE OF NEW YORK:
INSURANCE DEPARTMENT,
ALBANY, January 30, 1879. }

CANALS OF THE STATE.

The Honorable THOMAS G. ALVORD,
Speaker of the Assembly:

Sir—In compliance with the resolution of the Assembly, received by me this day, of which the following is a copy:

“STATE OF NEW YORK:
“ASSEMBLY CHAMBER,
“ALBANY, January 30, 1879. }

“Resolved, That the Superintendent of Insurance be requested to inform this House, within ten days, whether, since his accession to the office, any members of the Legislature have had any bills or claims before his department for services as counsel, examining titles or appraising property, or as actuaries; if so, the names of the parties, together with the amounts allowed, or claims now pending.”

TRANSMITTED TO THE LEGISLATURE JANUARY 31, 1879.

I have the honor to report, that the information called for by said resolution is contained in document number sixty-three (63), Assembly documents of one thousand eight hundred and seventy-eight (1878), to which I respectfully refer in answer to said resolution; and add that since that document was communicated to the Assembly, on the twentieth day of February, one thousand eight hundred and seventy-eight, no bills or claims as counsel, examining titles or appraising property, or as actuaries of any member of the Legislature, have been before this department, and none were before the department since my accession to the office of Superintendent, other than what are mentioned in said communication.

I have the honor to remain,
Your obedient servant,
JOHN F. SMYTH,
Superintendent.

ALBANY:
CHARLES VAN BENTHUYSEN & SONS,
1879.

The enlargement of the Erie canal and the consequent employment of larger boats, has decreased the cost of transportation upon this division of the water route, in a marked degree. On the old canals, with single locks, and before improvements were made in the size of the boats, the cost of transportation (see State Engineer's report 1850) was from \$7.40 to \$6.30 per ton, or 1 $\frac{2}{3}$ cents per ton per mile. The canal at that time was twenty-eight feet on the bottom, forty feet on top and four feet deep, and was adapted to boats carrying thirty tons burden. In the enlarged canal, which is seventy feet wide on the surface, fifty-six feet wide on the bottom, and seven feet deep, boats carrying two hundred and forty tons are used, and by the ordinary method of propulsion, or towing by horses, freight was transported, according to State Engineer's report, 1877, from Buffalo to New York for \$2.24 per ton, or 4 $\frac{2}{3}$ mills per ton per mile, including tolls.

The following table, taken from figures in the auditor's report, shows that since 1844 there has been a great reduction in the cost of transporting grain from Buffalo to New York:

During the present year there have been running between Buffalo and New York five steamers or single steamboats; twelve steamers that have a consort, or double boats, and two steam canal boats that each tow two boats coupled together, and steered according to the plan of Mr. Wm. Frick. In this latter method the tow-line from the steamer to the first boat is about two hundred and twenty-five feet long. Besides these steamboats there are six boats that are coupled together and steered according to Mr. Wm. Frick's plan, that are towed by horses. All the other boats on the canal are towed by horses. Near the close of navigation steam tugs are sometimes sent to Buffalo to bring down fleets of boats, but this method of propulsion is never continued throughout the season. The single steamers can go from Buffalo to New York in about seven days, and return in the same time. The double boats, or steamer and consort, in from nine to ten days, and return in about the same time. The steam canal boat that tows two boats coupled together, makes about the same time as the single horse-boats, or between twenty-five

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and thirty days for the round trip from Buffalo to New York and return.

Canal boats at West Troy leave the canal, and are made up into fleets of from twenty-five to one hundred boats, and are towed by powerful steamers to New York, taking about forty-eight hours to make the trip. Near Manhattanville the fleets commence to break up, and the boats which unload on the North river are taken by small tugs to their destination. The main part of the tow being carried around the battery to the East river.

The following statements from Messrs. Beadle, Pease and Case, gentlemen representing some of the most reliable lines of horse-boats, give the cost of doing business on the canal by this method.

Following them is a statement of the cost of transportation by propeller and consort, by Capt. Spurr, and also an estimate by Mr. Alouzo Richmond, of the cost of doing business by the same system, based on the cost and carrying capacity of two boats such as could be built at the present time.

COST OF RUNNING HORSE-BOAT FOR SEASON OF 1877, AS PER STATEMENT
OF NILES CASE.

Investment.

Cost of boat, 240 tons.....	\$3,200 00
Cost of four horses at \$125.....	500 00
Cost of four sets harness at \$15.....	60 00
 Total investment.....	 <u>\$3,760 00</u>

Annual Expenses.

Interest on investment.....	\$263 20
Reserved fund to replace boat, ten years.....	289 60
Repairs of boat per year \$125.....	125 00
Insurance on boat.....	20 00
	<u>\$697 80</u>

Running Expenses.

Cost of running boat seven trips.....	\$900 00
Cost of keeping horses twelve months.....	425 00
River and harbor towing, seven trips.....	175 00
Commissions, seven trips.....	175 00 v
Wharfage and incidentals, \$7×7.....	49 00
	<u>1,724 00</u>

Total season's expenses..... \$2,421 80

Tons Transported.

Eastward, 240×7=.....	1,680 tons
Westward, 57½×7=.....	402½ "

Total tons..... 2,082 50

Cost per ton from Buffalo to New York, 495 miles.....	\$1 16
Cost per ton per mile.....	2 ¹⁶ / ₁₀₀ mills

	Cents.
Cost per bushel, wheat, 495 miles	3.48
Tolls, Buffalo to New York.....	1.04
Elevator charges, New York.....	.50
Trimming.....	.11

Cost per bush. moved 495 miles and transhipped at N. Y. 5.13

(Signed)

NILES CASE.

COST OF RUNNING HORSE-BOAT FOR SEASON OF 1877, AS PER STATEMENT
OF FRANK BEADLE.

Cost of boat, 230 tons cargo.....	\$3,000 00
Horses, four at \$125.....	500 00
Harnesses, four sets at \$10.50.....	42 00
	<hr/>
Total investment.....	\$3,542 00

Annual Expenses.

Interest on investment at 7 per cent.....	\$247 94
Reserved fund to replace boat in ten years.....	289 60
Repairs to boat, 5 per cent per year.....	150 00
Insurance on boat per year.....	20 00
	<hr/>
	\$707 54

Cost of Running Boat.

17 days on canal \$5 per day.....	\$85 00
11 days on river and in N. Y., \$2.50 per day.....	27 50
	<hr/>
Seven trips cost 7 times.....	\$112 50 = \$787 50

Keeping of mules (4) \$55 per mo. $\times 7 =$	\$385 00
Keeping of mules, \$4 per week \$22.....	88 00
	<hr/>
	473 00
Reserved to replace mules in six years.....	69 90
River and harbor towing, \$30 trip $\times 7$	210 00
Commission, \$16 trip $\times 7$	112 00
Insurance, \$25 trip $\times 7$	175 00
Wharfage and incidentals, \$7 $\times 7$	49 00
	<hr/>

Total running expenses for season..... 1,876 40

Total expenses for year..... \$2,583 94

Tons Transported.

Eastward, $230 \times 7 =$	1,610 tons
Westward, $57\frac{1}{2} \times 7 =$	402\frac{1}{2} "
	<hr/>
Total transported.....	<u>2,012\frac{1}{2} tons</u>

Cost per ton moved from Buffalo to New York, 495 miles..... \$1.2839
 Cost per ton per mile moved from Buffalo to N. Y..... $2\frac{13}{100}$ mills

	Cents.
Cost per bushel wheat, 495 miles.....	3.85
Tolls, Buffalo to New York.....	1.04
Elevator charges, New York.....	.50
Trimming, New York.....	.11

Cost per bushel moved 495 miles and transhipped at
New York 5.50

Canal boats, cost for "scow" boats from \$2,000 to \$2,200.

"Bullhead" boats, \$2,800 to \$3,000.

Best lake boats from \$3,000 to \$3,200.

A boat well built, well salted and painted each year, and used with care, will last twenty years—twelve years as a grain boat; the balance of the time as a lumber and coal boat.

For running a canal boat thirty days, the captain paying and furnishing all help at \$5 per day on the canal, and \$2.50 per day on the river, making one hundred and twenty-three (123) dollars for thirty (30) days' wages, or running boat to New York and return with up cargo—average of sixteen boats during the past season. The canal at present being in first-rate order, boats are now making trips in from twenty to twenty-three days, coming back light; or from twenty-three to twenty-five days, returning with an up load of about 100 tons.

Feed for four mules thirty days.....	\$50 00
Shoeing and harness repairing.....	5 50

Total \$55 50

Or for towing 690 miles, $8\frac{1}{2}\frac{1}{2}$ cents per mile; add to the above winter keeping at \$1 per head, or \$4 per week for each boat, horses or mules, which is \$88 for twenty-two weeks.

This is an average of sixteen boats running during the season of 1877, when hay and feed was, a greater part of the season, 15 per cent higher than the present season of 1878.

(Signed)

FRANK BEADLE.

**COST OF RUNNING HORSE-BOAT FOR SEASON OF 1877, AS PER STATEMENT
OF JOHN PEASE.**

Investment.

Cost of boat to carry 230 tons.....	\$3,500 00
Cost of 4 horses at \$125.....	500 00
Cost of 4 sets harness at \$15.....	60 00
Total investment	\$4,060 00

Annual Expenses.

Interest on investment 7 per cent.....	\$284 20
Reserve fund to replace boat in 10 years	289 60
Repairs of boat 4 per cent per year.....	140 00
Insurance on boat per year.....	20 00
Carried forward.....	\$733 80

Brought forward..... \$733 80

Cost of Running Boat.

30 days for trip—20 on canal, at \$5	\$100 00	
10 on river, at \$3.....	30 00	
and for 7 trips would be 7 times.....	\$130 00	= \$910 00
Keeping horses, including shoeing and repairing harness		
4 horses at \$60 month, × 7 =.....	\$420 00	
4 horses at \$18 month, × 5 =.....	90 00	
	<u>510 00</u>	
Reserve to replace horses in 6 years.....	60 00	
River and harbor towing at \$40 per trip, × 7 =	280 00	
Commissions \$20 per trip, × 7 =.....	140 00	
Insurance on cargo \$25, × 7 =.....	175 00	
Wharfage and incidentals \$7, × 7 =.....	49 00	

Total running expenses for season..... 2,133 90

Total expenses for year..... \$2,867 70

Freight Transported.

Eastward, \$230 × 7 =.....	\$1,610 00
Westward, \$57½ × 7 =.....	402 50
Total tons transported.....	\$2,012 50

Cost per ton moved from Buffalo to New York, 495 miles.....	\$1.4240+
Cost per ton per mile, 2,185/8 mills.....	.002878

	<i>Cents.</i>
Cost per bushel of wheat 495 miles.....	4.27
Tolls Buffalo to New York.....	1.04
Elevator charges, New York.....	.50
Trimming, New York11

Cost per bushel moved 495 miles, and transhipped at
New York..... 5.92

(Signed) JOHN PEASE.