

DONATED BY *E. P. Millburn*

TWENTY-SECOND

ANNUAL REPORT

OF THE

BOARD OF DIRECTORS

OF THE

Lehigh Valley Railroad Company

TO THE

STOCKHOLDERS.

JANUARY 16TH, 1877.

PHILADELPHIA:
WILLIAM F. MURPHY'S SONS, PRINTERS,
1877.

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1900

ANNUAL REPORT

BOARD OF DIRECTORS

English / Mining Railroad Company

STOCKHOLDERS

1900

WILLIAM R. BARNETT, PRESIDENT

1900

OFFICERS
OF THE
LEHIGH VALLEY RAILROAD Co.

JANUARY 16th, 1877:

PRESIDENT,
ASA PACKER.

VICE-PRESIDENT,
CHARLES HARTSHORNE.

TREASURER,
LLOYD CHAMBERLAIN.

SECRETARY,
JOHN R. FANSHAWE.

GENERAL SUPERINTENDENT AND CHIEF ENGINEER,
ROBERT H. SAYRE.

DIRECTORS.

CHARLES HARTSHORNE,
WILLIAM W. LONGSTRETH,
J. GILLINGHAM FELL,
WILLIAM H. GATZMER,
DAVID THOMAS,
ASHBEL WELCH,

WILLIAM L. CONYNGHAM,
ARIO PARDEE,
WILLIAM A. INGHAM,
JOSEPH WHARTON,
GEORGE B. MARKLE,
ROBERT H. SAYRE.

OFFICERS

OF THE

LEHIGH VALLEY RAILROAD CO.

JANUARY 1887

PRESIDENT

ASA PACKER

VICE PRESIDENT

CHARLES HARTSHORN

TREASURER

LEOYD CHAMBERLAIN

SECRETARY

JOHN R. FAIRBANKS

GENERAL SUPERINTENDENT AND CHIEF ENGINEER

ROBERT H. BAYNE

DIRECTORS

WILLIAM D. COOPER

AND OTHERS

WILLIAM A. LEAMAN

JOSEPH W. HAYNE

GEORGE R. BAYNE

ROBERT H. BAYNE

CHARLES HARTSHORN

WILLIAM W. LONGBRIDGE

J. GILBERT W. BELL

WILLIAM H. BAYNE

DAVID THOMAS

ARTHUR WELCH

ANNUAL REPORT
OF THE
LEHIGH VALLEY RAILROAD CO.

January 16th, 1877.

The coal tonnage for the past year was larger than for any previous year, with the exceptions of 1873 and 1874. The following are the totals for each of the past five years, including both anthracite and bituminous coal.

1872.....	3,877,719 tons.
1873.....	4,172,366 "
1874.....	4,177,282 "
1875.....	3,333,472 "
1876.....	3,987,018 "

This shows an increase during 1876 of 653,546 tons over the preceding year.

The great reduction in the price of coal has caused a corresponding decrease in the charges for transportation.

Our income from all sources including interest received from investments, etc., amounted to.....	\$8,037,247 20
Operating expenses of the road.....	3,842,750 04
Net income.....	\$4,194,497 16

On November 30th, 1876, the close of our fiscal year, our capital account was as follows:

Preferred and Common stocks, including scrip not yet converted,	\$27,228,920 00
Six per cent. bonds, due in 1898 (coupon and registered),.....	5,000,000 00
Seven per cent. registered bonds, due in 1910.....	6,000,000 00
Consolidated mortgage bonds:	
Sterling.....	\$4,794,000
Coupon.....	2,000,000
Registered.....	6,000,000
Annuity.....	392,000
	13,186,000 00
Floating debt, less cash on hand.....	460,208 14
	\$51,875,128 14

The increase of the capital account beyond the amount in the last report is \$2,653,830.64. This is represented by the following expenditures, the difference in the totals being made up by cash assets on hand at close of last year.

Increased locomotive and passenger car equipment.....	\$294,898 00
Increased coal and freight car equipment.....	590,540 36
Easton and Amboy Railroad.....	1,044,170 93
Balance due by Erie Railway Co. as explained below.....	675,000 00
Redemption of Morris Canal bonds.....	573,000 00
Purchase of additional interest in Geneva, Ithaca & Sayre Railroad Co.....	121,206 34
Advanced for construction purposes to Pennsylvania & New York Canal & Railroad Co., for which we receive their ten per cent. preferred stock.....	200,000 00
	\$3,498,815 63

Since the last Annual Meeting two quarterly dividends of two and a-half per cent., and two of two per cent. have been declared, amounting to nine per cent. for the year.

The first and second mortgage bonds of the Morris Canal and Banking Company, in all \$785,000, became due in April last, and have been paid by us, and the mortgages are satisfied. That Company has created a new first mortgage for one million dollars, of which amount, bonds have been delivered to us for those paid and cancelled, and the remainder are held to be exchanged for any further indebtedness of theirs which we may discharge.

In accordance with the provisions of the sinking fund of our sterling loan, one hundred and twelve bonds were drawn for in London, in September last, payable December 1st, 1876, and they are now being paid off. This reduces the amount of that loan to \$4,682,000, it being the only obligation of this Company on which principal or interest is payable in gold.

The Easton and Amboy Railroad has been operated since its opening as a part of our own road, and we transported over that division, 881,459 tons of anthracite coal during the year. The double track has been completed throughout, and the necessary

sidings, station-houses, etc., furnished for the proper working of the line, and large additions made to the shipping facilities at Perth Amboy. The total cost of this road and its appurtenances, at the close of our fiscal year was \$9,544,038.27. This road is wholly owned by us, and is free from all debt.

The Pennsylvania and New York Canal and Railroad Company, whose report is published herewith, has continued to be our most valuable feeder and outlet for business, as well as a very important source of income as an investment. Besides holding a majority of the common stock, this company owns \$3,977,400 of their preferred stock.

The Ithaca & Athens, and Geneva & Ithaca Railroad Companies, whose lines were built as a northern connection of the Pennsylvania and New York Railroad, passed into the hands of a receiver early in 1875, and the property and franchises were sold in September last. We joined with other bondholders in their purchase. The two companies were reorganized under the laws of the State of New York into a new corporation, as the Geneva, Ithaca, and Sayre Railroad Company, with a present Capital Stock of \$850,000, subject to a debt of \$600,000, bearing interest at seven per cent. in gold, being the first mortgage bonds of the Ithaca and Athens Railroad Company, and secured by mortgage of the thirty five miles south of Ithaca. The whole line is seventy five miles in length, connecting the line of the Pennsylvania and New York Railroad at Sayre with that of the New York Central Railroad at Geneva. Of the above named Capital Stock we hold \$693,400.

Our business with the Erie Railway Company, at Waverly and Elmira, having always been subject to inconvenience in consequence of the difference in gauge, an agreement was entered into with the Receiver of that Company, under sanction of the proper Court in New York, by which we advanced the rails, &c., necessary to complete the 4 foot 8½ inch gauge to East Buffalo, thus enabling our cars to pass directly from our own line to Buffalo, and to the International and Suspension Bridges,

and putting us into connection with all the lines centreing at those points. The amount advanced under this contract was \$903,531.35, to be repaid with interest in monthly instalments, and there was coming to us at the close of our fiscal year, \$675,000, we having been repaid \$228,531.35 to that date. This work was completed early last summer in time to be of great assistance to us in transporting the large passenger travel to and from Philadelphia in attendance upon the Centennial Exhibition.

The amount of coal shipped from lands owned or controlled by us during the past year was 1,613,795. $\frac{11}{10}$ tons, a portion of which was sent to market by other routes. The business of mining and selling coal has been comparatively unremunerative, especially during the latter part of the year.

It may interest the stockholders to know that neither the lands owned by us nor those owned by the Lehigh Valley Coal Company, are subject to any bonded or other debt. The only guarantee of this Company, in connection with our coal interests, is that of the bonds of the Delano Land Company, covering 5229 acres of coal land in Schuylkill County, with eight collieries in operation and amounting to \$1,697,000, of which \$312,000 are owned by us.

For details of our business we refer to the report of the Superintendent and Engineer.

No change has taken place during the past year in the Board or general officers.

By order of the Board.

ASA PACKER,

President.

REPORT
OF THE
SUPERINTENDENT AND ENGINEER
OF THE
LEHIGH VALLEY RAILROAD COMPANY.

BETHLEHEM, PA., *November 30, 1876.*

HON. ASA PACKER, *President.*

SIR:—The following report of the operations of the road for the fiscal year, ending this date, is respectfully submitted.

The total anthracite production of the country for the year past shows a considerable reduction—about 1,500,000 tons—from the previous year, owing to the continued depressed condition of business generally, and particularly of the iron interests, with which it is so closely allied.

That portion of the coal seeking an outlet over our line, falls short of the amount transported in 1874—our heaviest year—by nearly 200,000 tons, but as compared with the year 1875, shows a marked and satisfactory increase.

During the first nine months of the year, the market was not in condition to take the whole production of the mines, and frequent stoppages became necessary.

This irregularity in the transportation, added largely to the expense of conducting it. The remaining three months our tonnage was heavier and much more regular, but done at a very large reduction in rates, amounting on tide coal to nearly 50 per cent. Applied to the total number of tons moved one mile, which was the largest in the history of our road, it amounted to about $\frac{4}{10}$ of a cent per ton. The total amount of anthracite coal transported over the main line and branches for the year, was 3,951,513.19 tons, an increase, compared with last year, of 673,942.07 tons, or $20\frac{56}{100}$ per cent.; and as compared with 1874, a loss of 199,145.11 tons, or $4\frac{8}{10}$ per cent.

The coal was derived from the following sources :

REGIONS.	1875.	1876.	Increase or decrease.
Wyoming.....	1,018,786 12	1,072,687 19	53,901 07
Hazleton.....	1,439,906 19	1,712,254 06	272,347 07
Upper Lehigh.....	1,479 08	2,434 08	955 00
Beaver Meadow.....	364,665 01	621,304 19	256,639 18
Mahanoy	432,146 05	519,906 15	87,760 10
Mauch Chunk.....	2,420 18	22,925 12	20,504 14
North from Easton.....	18,166 09	.....	Dec. 18,166 09
Totals.....	3,277,571 12	3,951,513 19	673,942 07

and was delivered as follows:

To	1875.	1876.	Increase.	Decrease.
Penna. & N. Y. R. R.....	485,818 03	467,728 12	.....	18,089 11
Northern Central R. W. Danville, Hazleton, and W. R. R.....	2,100 14	23,845 19	21,745 05	
Phila & Reading R. R....	39,146 19	40,990 03	1,843 04	
L. & S. Div. C. R. R. of N. J. at Packerton.....	520 00	.....	.....	520 00
L. & S. Div. C. R. R. of N. J. at Penn Haven for canal.....	9,508 06	6,617 12	.....	2,890 14
L. & S. Div. C. R. R. of N. J. at Penn Haven for rail.....	149,907 05	85,953 17	.....	63,953 08
Lehigh Canal at Mauch Chunk.....	1,103 16	718 05	.....	385 11
At Mauch Chunk.....	69,916 19	82,849 08	12,932 09	
On line of road above Mauch Chunk.....	3,375 01	3,200 19	.....	174 02
At and above M Chunk for Co.'s use.....	12,535 04	11,590 03	.....	945 01
Catawissa Branch of P. & R. R. R.....	64,118 19	77,172 14	13,053 15	
Lacka. & Bloom. R. R....	47 01	162 19	115 18	
Local points east of Mauch Chunk.....	21,673 02	20,787 16	.....	885 06
East of Mauch Chunk for Co.'s use.....	64,401 01	49,593 18	.....	14,807 03
Furnaces & Mfg. Co.'s..	58,389 15	83,227 11	21,837 16	
Berks and Lehigh R. R.	439,939 01	402,080 10	.....	37,858 11
Catasauqua and F. R. R.	1,754 10	347 17	.....	1,406 13
Ironton R. R.....	7,779 18	6,500 07	.....	1,279 11
East Penna. R. R.....	7,536 15	7,103 18	.....	432 17
Perkiomen R. R.....	4,328 19	1,609 01	.....	2,719 18
North Penna. R. R.....	.....	24,883 07	24,883 07	
Morris Canal.....	256,702 09	197,661 16	.....	59,040 13
Morris and Essex R. R..	142,524 08	212,776 07	70,251 19	
Bel. Del. Div. P. R. R....	301,906 00	259,518 00	.....	42,388 00
Central R. R. of N. J....	657,014 16	962,630 10	305,615 14	
N. J. Div. L. V. R. R....	78,151 06	40,503 10	.....	37,647 16
	397,371 05	881,459 00	484,087 15	
	3,277,571 12	3,951,513 19	673,942 07	

The increase in tonnage east of Mauch Chunk, is 712,095.09 tons, or 29.45 per cent. The amount of coal delivered to furnaces and mills upon our line, shows a falling off of 37,859.00 tons from last year's delivery, and, as compared with 1872, since which time the number of furnaces and rolling mills has been increased, the yearly delivery by our road on its line shows

a reduction of 313,266 tons. More than one-third of our total local tonnage of this year was received by the Bethlehem Iron Company and the Lehigh Zinc Company.

TONS OF ANTHRACITE CARRIED ONE MILE.

REGION.	1875.	1876.	Increase.
Wyoming.....	29,631,158.02	34,136,517.05	4,505,359.03
Hazleton.....	33,264,884.08	39,955,716.17	6,690,832.09
Beaver Meadow.....	7,959,556.11	13,547,469.18	5,587,913.07
Mahanoy.....	15,645,645.18	19,231,308.07	3,585,662.09
Total above Mauch Ch'nk	86,501,244.19	106,871,012.07	20,369,767.08
Total below Mauch Ch'nk from all regions.....	122,551,208.07	185,473,825.16	62,922,617.09
Grand total.....	209,052,453.06	292,344,838.03	83,292,384.17

The number of tons carried one mile, including the tonnage of New Jersey Division, was 39.84 per cent. greater than in 1875, and the rate per ton per mile received, $18\frac{71}{100}$ per cent. less.

The general reduction in transportation charges, reached the miscellaneous freights to the extent of $\frac{17}{100}$ of one cent per ton per mile; hence it will be observed that the percentage of increase in tons carried one mile is more than double the percentage of increase of cash receipts.

There were transported $1,684,122\frac{90}{100}$ tons, equal to 69,902, $717\frac{79}{100}$ tons carried one mile, an increase over last year of $10,990,217\frac{22}{100}$ mile tons, or $18\frac{66}{100}$ per cent. The increase on cash receipts, is \$86,389 97, or $7\frac{84}{100}$ per cent. Our line participated to some extent in the large travel induced by the "Grand Exposition of all Nations" at Philadelphia, and shows a considerable increase in the number of passengers carried,

although it is more plainly shown in the number carried one mile.

The local travel availing itself of excursion rates, and the low fares obtained from foreign travel by reason of competition, reduced the rate received per passenger per mile one-half cent. The total number of passengers transported, was 1,233,443, an increase from last year of 164,779, or $15\frac{42}{100}$ per cent.; passengers carried one mile, 33,388,877, an increase compared with 1875 of 15,972,429, or $91\frac{71}{100}$ per cent. The receipts from this source, including mail and express, show an increase over last year of \$307,777 40, or $59\frac{17}{100}$ per cent. All branches of our traffic show a marked increase in tonnage and receipts, and the aggregate is the heaviest we have ever had. The total road receipts and expenses for the year are shown below.

From transportation of	Gross Receipts.	Expenses.	Net Receipts.
Coal.....	\$5,030,241 60	\$2,549,344 40	\$2,480,897 20
Freight.....	1,191,498 45	785,552 01	405,946 44
Passengers, Express and Mail.....	827,906 51	507,853 63	320,052 88
Total.....	\$7,049,646 56	\$3,842,750 04	\$3,206,896 52
1875.....	6,046,495 44	3,262,861 97	2,783,633 47
Increase.....	\$1,003,151 12	\$579,888 07	\$423,263 05
Increase per cent.....	$.16\frac{59}{100}$	$.17\frac{77}{100}$	$.15\frac{31}{100}$

There are now in use on all divisions of the track:--

137.20 miles of single track,
 95.19 miles of double track, in addition to which there are
 13.76 miles of second track laid, but used as sidings, and
 135.09 miles of sidings,

 476.13 miles, an increase during the year of 12.91 miles.

There are also on the main line and branches, 7.55 miles of grading complete and ready for the track, as follows:—

On Lehigh Division.....	0.63 miles.
On Wyoming Division.....	2.88 "
On Hazleton Division	3.84 "
On Beaver Meadow Division	0.20 "
Total	<u>7.55 miles.</u>

In addition to the above, there are laid and in use upon the New Jersey Division:—

60.00 miles of double track, 59.69 miles laid with 65lb. iron and steel, and 0.31 miles laid with 50lb. iron,
 11.88 miles of sidings on main line, including connection at Metuchen,
 4.77 miles of sidings for loaded cars at Perth Amboy,
 4.22 miles of sidings for empty cars, and to and in engine house at Perth Amboy,
 18.56 miles of track upon docks, wharves, and stocking ground,
159.43 miles, an increase during the year of 15.43 miles, making a total of 635.86 miles of track.

The following materials were used for repairs and construction:—

DIVISION.	Steel Rails.	Iron Rails.	Switch Frames.	Frogs.	Cross-Ties.	Splices.	Kegs of Sikes.
Lehigh.....	5,004	365	38	78	75,644	5,221	573
Wyoming	2,167	1,358	25	65	57,040	1,328	342
Hazleton	1,517	2,806	40	67	25,800	2,708	152½
Beaver Meadow	2,417	1,151	7	35	38,135	936	225
Mahanoy.....	3,301	2,321	13	34	33,047	3,477	205
Total	<u>14,406</u>	<u>8,001</u>	<u>123</u>	<u>279</u>	<u>229,666</u>	<u>13,670</u>	<u>1,497½</u>
Penna. & N.Y. R. R. Wilkesbarre to Lack. Junction..	913	140	6	24	13,335	136	44

RAILS.

We have relaid track with steel rails, and have now in use as follows:—

MILES OF STEEL TRACK.	On last Report.	Laid and relaid this year.	Total now in use.
On New Jersey Division.....	62.47	2.10	64.57
On Lehigh Division.....	56.47	12.66	69.13
On Wyoming Division.....	44.78	5.74	50.52
On Hazleton Division.....	9.86	4.83	14.69
On Beaver Meadow Division.....	17.10	6.82	23.92
On Mahanoy Division.....	.....	9.31	9.31
Total.....	190.68	41.46	232.14
Pennsylvania & New York Railroad, Wilkesb're to Lackawanna Junct.	6.98	2.62	9.60

BRIDGES.

The iron branch bridge of two spans, single track, connecting with the Central Railroad of New Jersey, and the Morris & Essex Railroad at Phillipsburg, spoken of in last report, has been completed, and the old wooden structure removed. Over Andreas' Creek, near Slatington, an iron girder bridge has replaced wooden stringers, and the same over Hickory Run.

At Perth Amboy an iron bridge of 66 feet span for three tracks has been built over a street, which was graded in Perth Amboy to avoid a very objectionable grade-crossing. At Rockdale a stone arch of 12 feet span is being built, to replace a wooden bridge of 75 feet span. When completed there will remain but two wooden structures of importance on our main line from Perth Amboy to Wilkesbarre, viz.: the bridge crossing the river at Penn Haven Junction, and that crossing the river near White Haven. This latter it is proposed to renew early in the coming year with a substantial iron structure.

EQUIPMENT.

Our locomotive equipment has been increased during the year by 27 engines, of which 6 were built at our own shops, 11 were purchased from the Baldwin Locomotive Works, and 10 from the Grant Locomotive Works.

We have increased our stock of cars as follows:

BUILT AT OUR OWN SHOPS.

Baggage cars.....	4
Wreck and tool cars.....	4
Four-wheeled caboose cars.....	2
Eight wheeled caboose cars.....	10
Gondola cars.....	25
Tunnel coal cars for Perth Amboy.....	76
Eight-wheeled house cars.....	96
Four-wheeled coal cars.....	1,722

PURCHASED.

Passenger cars.....	25
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Nine of our passenger cars have been worn out and put out of service during the year.

Our equipment is now as follows:

	On last Report.	Increase.	Decrease.	November 30. 1876.
Engines of all classes.....	205	27	.....	232
Passenger Cars.....	59	16	.....	75
Directors' Car and Pay Car.....	2	.....	1	1
Baggage and Express Cars.....	32	4	.....	36
Gravel Cars.....	166	.....	.....	166
Eight-wheeled House Cars.....	660	96	.....	756
Stock Cars.....	12	.....	.....	12
Wreck and Tool Cars.....	20	4	.....	24
Four-wheeled Platform Cars....	9	.....	.....	9
Six-wheeled Platform Cars.....	100	.....	.....	100
Eight-wheeled Platform Cars...	411	.....	.....	411
Four-wheeled Caboose Cars.....	20	2	.....	22
Six-wheeled Caboose Cars.....	2	.....	1	1
Eight-wheeled Caboose Cars.....	27	10	.....	37
Lime Cars.....	44	.....	.....	44
Gondola Cars.....	264	25	.....	289
Tunnel Coal Cars.....	24	76	.....	100
Coal Cars, rated as four-wheeled	22,055	1,722	.....	23,777

TRACKS.

The double-track on Mahanoy Division has been extended from Quakake to Delano, which facilitates very much the business of that branch—3.04 miles of double-track, but used as sidings, was laid on Wyoming Division. Two miles of track necessary to complete the double-track on New Jersey Division has been laid. 15.1 miles of our heavy track between Easton and Allentown has been laid with 66lb. steel rail, and the 58lb. rail moved to the light track, as suggested in my last report. This plan should be pursued to completion during the coming year, as much of the 58lb. rail is so much worn as to make the change desirable on the score of economy. The substitution of the heavier rail involves changing our frogs and switches, and 27 steel rail frogs were put in. They are much superior in every respect to the cast-iron, steel-plated frogs heretofore in use. Forty-two miles of iron track has been replaced by steel. This and all other betterments of track have been charged to maintenance of way. A large amount of work has been done on the New Jersey Division in ballasting track, sloping and widening of cuts, and widening embankments. There yet remains considerable ballasting to be done, and this, with the supplying the loss by settlement and waste of the slopes by washing of four or five of the heaviest embankments, will be all the work necessary, apart from the usual wear and tear, to keep this division in first class condition.

BUILDINGS.

The depots spoken of in last report, as being constructed at New Market and Pattenburg have been completed, as have the engine house, car shop, boarding house, office, &c., &c., at Perth Amboy. There has also been erected at Phillipsburg a commodious passenger house and a freight depot; a freight and passenger depot, combined, at Bloomsbury; a passenger depot and freight depot at West End; a passenger and freight depot, combined, at Midvale; a freight depot finished, and passenger depot, nearly completed, at Flemington Junction, and a small passenger station at South Plainfield. At the other unim-

portant station between Phillipsburg and Metuchen, small buildings have been erected for the protection of passengers.

DOCKS AND WHARVES.

Coal pier "C" and trestle approach, under way at date of last report, has been completed and is in use. The freight pier alluded to has been enlarged and finished. It is 800 feet long and 65 feet wide. A new pier, used principally in the shipment of pig iron, rails, &c., 800 feet long and 75 feet wide, has been completed. A large amount of filling has been done on the meadows approaching the different piers, for the purpose of making storing ground for coal, and for laying tracks approaching the freight piers. That portion underneath the trestles approaching the coal piers has been planked over, and partitions have been put in the trestling for separating the various sizes, and ownerships of coal necessary to be stocked. Some planking is still required, which, when completed, will give us stocking capacity for 200,000 tons of coal. All the canals adjoining the piers have been dredged to a depth of 16 feet at low water.

There is little work yet to be done at Perth Amboy to complete all the improvements now contemplated.

A large coal depot has been erected at Newark, at the intersection of Broad Street with the Pennsylvania Railroad, for the purpose of supplying a portion, at least, of the city's consumption.

Cars are hoisted by a stationary engine up an incline, and run by gravity over the several tracks on the structure. The coal is dumped into the different bins, of which there are 168, of an aggregate capacity of about 9,000 tons. Wagons and carts pass under the platform, and the coal is drawn from the bottom of the bins over screens directly into them, so that no extra handling is required. The whole cost of the structure, including land upon which it stands, and all the appurtenances, was about \$60,000.

At several points upon our road the supply of water necessary for our locomotives failed wholly, or in part, during the

summer. Much difficulty was experienced on Wyoming Division, which has been partially overcome by the erection of additional water tanks. At Rockdale we were forced to put in a steam pump to obtain a supply. Arrangements were made with the owners of a small stream between Rockdale and Slattington for a supply, and a tank and stand pipes erected. Much of the water on the New Jersey Division is muddy at times, and affects injuriously the boilers and flues of our locomotives. At Metuchen a large well will have to be sunk, as the only means of obtaining pure water. The large well sunk at Amboy has failed to yield a full supply. Measures will have to be taken to obtain sufficient for the locomotives, and provision be made for extinguishing fires, should any occur, on either of the coal piers.

During the past year the expense of transportation, southward from Wyoming Valley, has been largely increased by the delays incident to the use of a single track between Sugar Notch and Fairview.

Division Superintendent, Mitchell, reports that an increased amount of labor from each engine and man, equal to 33 per cent., might reasonably be expected, with the addition of a second track between the stations above named. The building of the line from Fairview to Lackawanna Junction would accomplish the same result, and effect a still larger saving due to the lighter grade per mile, and shorter distance. The line, as located, is about 17 miles from Lackawanna Junction to Fairview, with a maximum grade of 74 feet per mile on tangents, and reduced to that equivalent on curves. The distance saved on all traffic from the north would be $9\frac{3}{4}$ miles, and this would apply to the east or south bound coal from Exeter and our Everhart lands, and would offer less grade and some saving in distance to all coal traffic, as far down the valley as Prospect. This line would also open considerable coal territory belonging to our company, as well as to others now without an avenue to market. The estimated cost of it is \$1,250,000, while the double tracking of our present line between Sugar Notch and

Fairview would not probably exceed \$500,000. But in view of the fact that a very large accession to the east bound coal tonnage may be expected from year to year, and taking into consideration the continuous saving of distance on all our traffic from the north and west, as well as on coal that centres at Pittston, I think the larger amount should be expended. I would recommend that the work be begun the coming year, as all expenditure for double tracking our present line between Pittston and Fairview will be unnecessary, if the other line is ever built. The alternative of a system of inclined planes over the mountain has been considered. They would cost less than the cut-off line, and if our traffic was confined to coal, I would prefer that mode of overcoming the difficulty to either of the other plans. But with our large, varied, and growing traffic from the north and west, and other considerations, I am prepared to recommend the cut-off line.

The constant increase in our rolling stock makes shop expansion a necessity. The locomotives of Wyoming Division, and those of P. & N. Y. C. and R. R. Co. are now repaired at Wilkesbarre shops, which are entirely inadequate for the purpose. If double-tracking our present route from Pittston to Fairview is decided upon, we might with propriety increase our Wilkesbarre shops, but if the new line is built, shops should be built at Sayre for repairing the equipment of the P. & N. Y. C. and R. R., the Geneva, Ithaca & Sayre R. R., and that used in the transportation of our coal over the Erie Railway.

The increased equipment necessary for working the New Jersey Division, has rendered our South Easton shops inadequate for the economical repairs required. During the past summer sufficient ground was purchased to enlarge and extend the shops, so as to meet the requirements of the case, and I would recommend its being done.

Very respectfully,

ROBERT H. SAYRE,

Sup't and Engineer.

REPORT

OF THE

Pennsylvania and New York Canal

AND

RAILROAD COMPANY.

OFFICERS AND DIRECTORS

OF THE

Pennsylvania & New York Canal & R. R. Co.

PRESIDENT,

ROBERT H. SAYRE.

TREASURER,

CHARLES HARTSHORNE.

GENERAL SUPERINTENDENT,

ROBERT A. PACKER.

AUDITOR,

JOHN B. GARRETT.

DIRECTORS.

ASA PACKER,

WILLIAM W. LONGSTRETH,

CHARLES HARTSHORNE,

ROBERT A. PACKER,

VICTOR E. PIOLLET,

GARRETT B. LINDERMAN.

J. HENRY SWOYER,

JOHN J. TAYLOR,

ROBERT LOCKHART,

JOHN W. HOLLENBACK,

WILLIAM H. SAYRE,

ELISHA P. WILBUR.

REPORT.

TO THE STOCKHOLDERS OF THE PENNSYLVANIA AND NEW
YORK CANAL AND RAILROAD COMPANY.

The Managers submit the following report:—

The earnings and expenses, for the year ending November 30th, 1876, have been as follows:

FROM	GROSS RECEIPTS.	EXPENSES.	NET RECEIPTS.
Transportation of Coal.....	\$949 572 48	\$598,016 32	\$351,556 16
Transportation of Freight..	387,329 78	269,749 27	117,580 51
Transportation of Pas- sengers, Express, and Mail.....	318,502 88	200,936 17	117,563 71
Canal.....	632 55	1,527 90	Loss, 895 35
Miscellaneous.....	22,301 05	.....	22,301 05
<hr/>			
Total.....	1,678,338 74	1,070,229 66	608,109 08
1875.....	1,481,040 87	942,162 82	538,878 05
<hr/>			
Increase	197,213 47	127,982 44	69,231 03

There has been paid during the year \$210,000, for interest on bonds, leaving \$398,109 08 applicable to taxes, dividends, interest, &c. It is proposed to declare a dividend of \$350,000, being 10 per cent. on the preferred stock outstanding in 1874.

It is gratifying to note an increase in receipts from every branch of the traffic of our road, despite the continued severe depression of the business of the country. The tonnage shows a much larger increase than the cash receipts, owing to the

low rates prevailing on freights from the west, due mainly to the contest between the trunk lines; also, to the large reduction in the rates received from transportation of coal during the last quarter of the year, and the low rates obtained from Centennial travel.

The passenger travel has been double that of any preceding year since the opening of our line; this was due, in a great measure, to the Centennial Exposition, but all branches of our traffic have been stimulated by the improved facilities afforded by the laying of a third rail on the Erie Railway, thus giving us connection of unbroken gauge to Buffalo, Chicago, and all principal cities in the west, and north and southwest.

The plan of gradually extending our double track has been pursued during the year, and there is now in use, partly as second track and partly as sidings, $44\frac{5}{10}$ miles. We now have in use, including Main Line, second track, sidings, and branches, $202\frac{5}{10}$ miles of track, an increase of $15\frac{48}{100}$ miles.

Several of our wooden bridges have been removed, and those of stone or iron substituted. Most of the timber bridges now remaining should be replaced the coming year by more permanent structures. For details upon this, and the business of the road, see report of the Superintendent hereto annexed.

The business of the Buffalo Creek Railroad is upon a much more satisfactory basis than ever before, and will probably hereafter be self sustaining.

The purchase of the Geneva, Ithaca and Athens Railroad, gives us a connection at Ithaca with the Erie Canal through Cayuga Lake, and with the New York Central Railroad at Geneva, and insures to us the traffic arising upon 75 miles of railroad.

By order of the Board,

ROBERT H. SAYRE,

President.

BETHLEHEM, PA., *December 1, 1876.*

REPORT OF THE SUPERINTENDENT
OF THE
Pennsylvania & New York Canal & Railroad Company.

Office of the General Superintendent,

SAYRE, Pa., November 30, 1876.

ROBERT H. SAYRE, ESQ.,
President P. & N. Y. C. & R. R. Co.

DEAR SIR:—I respectfully submit the following report for the fiscal year closing with this date.

COAL TONNAGE.

We note an increase of $82,688\frac{8}{10}$ tons, in amount of coal transported over our road during the year just closed, and mark another step in the unbroken, though moderate yearly enlargement which has characterised this branch of our business since the opening of the road.

The total coal tonnage for this year is $1,165,952\frac{2}{10}$ tons, and is compared with last year's tonnage as follows:

	1875		1876		INCREASE.	
	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.
Anthracite	748,073.04		804,344.15		56,271.11	
Bituminous.....	335,191.00		361,607.17		26,416.17	
Total.....	1,083,264.04		1,165,952.12		82,688.08	

The anthracite tonnage was derived from the following sources :

REGIONS.	1875		1876		Increase.		Decrease.	
	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.
Wyoming.....	727,885	05	760,926	06	33,041	01		
Hazleton.....	7,067	05	6,897	07			169	18
Beaver Meadow.....	121	14	1,948	00	1,826	06		
Mahanoy.....			26	16	26	16		
Sullivan.....	12,999	00	34,546	06	21,547	06		
Total.....	748,073	04	804,344	15	56,271	11		

And was distributed as shown by statement below :

	1875		1876		Increase.		Decrease.	
	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.
On Line Road.....	25,442	11	22,130	01			3,312	10
Montrose Railway.....	3,966	14	3,801	01			165	13
S. Central Railroad.....	189,948	05	201,471	14	11,523	09		
G., I. & S. R. R.....	223,410	06	271,258	16	47,848	10		
L. V. R. R.....	44,205	01	10,831	10			33,373	11
Erie Railway Junc.....	153,158	18	71,061	14			82,097	04
Erie Railway, 3d rail.....	33,907	17	114,670	19	80,763	02		
Watkins "direct.".....	43,357	17	70,062	07	26,704	10		
For use of Company.....	30,675	15	39,056	13	8,380	18		
Total.....	748,073	04	804,344	15	56,271	11		

The sources of supply and distribution of the bituminous coal tonnage were as follows :

RECEIVED FROM.	1875		1876		Increase.		Decrease.	
	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.
BARCLAY REGION.								
Towanda Coal Co.....	174,916	11	160,343	07			14,573	04
Fall Creek Coal Co.....	16,161	06					16,161	06
Schraeder Coal Co.....	143,422	07	200,795	12	57,373	05		
North'n Cent'l R.W. (Gas Coal)	690	16	468	18			221	18
Total.....	335,191	00	361,607	17	26,416	17		

DISTRIBUTION.

	1875		1876		Increase.		Decrease.	
	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.	Tons.	Cwt.
On Line of Road.....	2,512.02		1,765.04					746.18
To S. C. R. R.	101,345.13		160,631.06		59,285.13			
To G. I. & S. R. R.....	51,566.19		22,835.10					28,731.09
To L. V. R. R.....	6,489.19		15,126.17		8,636.18			
To Erie Railway.....	171,876.09		160,343.07					11,533.02
Used by Company.....	1,399.18		905.13					494.05
Total.....	335,191 00		361,607.17		26,416.17			

TONS CARRIED ONE MILE.

	1875	1876	Increase.
Anthracite, in tons.....	62,896,257 $\frac{70}{100}$	69,283,037 $\frac{45}{100}$	6,386,779 $\frac{75}{100}$
Bituminous, in tons.....	7,024,611 $\frac{22}{100}$	7,945,194 $\frac{13}{100}$	920,582 $\frac{91}{100}$
Total Tons.....	69,920,868 $\frac{92}{100}$	77,228,231 $\frac{58}{100}$	7,307,362 $\frac{66}{100}$

FREIGHT BUSINESS.

The amount of freight, exclusive of coal, transported during the year, was 358,632 $\frac{23}{100}$ tons, equal to 29,419,043 $\frac{57}{100}$ tons carried one mile, an increase of 75,752 $\frac{93}{100}$ tons, or 26 $\frac{7}{10}$ per cent., and of 7,508,607 $\frac{2}{100}$ tons carried one mile, or 34 $\frac{2}{10}$ per cent. While the tonnage has been thus largely increased, the average rate obtained for transportation has declined from 1 $\frac{68}{100}$ cents per ton per mile in 1875, to 1 $\frac{32}{100}$ cents per ton per mile in 1876, and the gross receipts from this source have increased but 5 $\frac{4}{100}$ per cent.

PASSENGERS.

The number of passengers carried during the year, was 333,785, an increase of 131,878, or 65 $\frac{3}{10}$ per cent. The number of passengers carried one mile, was 19,310,879, or 230 $\frac{74}{100}$ per cent. in excess of last year. The receipts from this source show an increase of 101 $\frac{28}{100}$ per cent. The Centennial Exposit-

tion held during this year, attracted a large number of visitors to Philadelphia, and the travel was very heavy during the three months preceding the close of the great fair.

The number of passengers carried in the months of September, October, and November, was 156,206, or nearly one-half the entire year's business in three months.

STATE LINE AND SULLIVAN RAILROAD.

We continued to operate the State Line and Sullivan Railroad until November 1st of this year, at which time the owners of the road assumed direct control of its business. In addition to the coal tonnage received from this source, the connection has become of value to us, on account of a considerable lumber and bark business, which has been developed along its line, and which seeks a market over our road.

Our compensation for transportation service on this road for the eleven months ending October 31st, 1876, was \$19,996 83, an increase of \$6,383.71 over the amount received for same service during the previous year.

CANAL.

The amount of canal tolls collected at Wilkesbarre for the year, was \$632.55, a decrease of \$138.65 from last year. The amount of coal on which tolls were collected, was 10,189 tons, and of other freights, 6,168 tons. Only that portion of the canal lying in the city of Wilkesbarre, is used for transportation purposes.

EQUIPMENT.

Our motive power has been increased during the year, by the purchase of eleven locomotives, making the number now owned 50 against 39 at the close of previous year. Our facilities for repairs of locomotives are entirely inadequate and should be increased. On account of this deficiency, a larger number of engines are out of use or in need of repairs than would otherwise be the case, and during part of the season we were obliged to hire locomotives to take their places.

We have added to our car equipment, by building 1 tool car and 10 caboose cars; the cost of which, together with the renewal of cars worn out and destroyed, has been charged to expense account, and by purchase, 25 stock cars and 2 eight-wheeled coal cars.

We now have the following:

Locomotives.....	50
Wrecking and derrick cars.....	3
Gravel cars.....	31
Four wheeled caboose cars.....	28
Eight-wheeled caboose cars.....	4
Eight-wheeled platform cars.....	57
Eight-wheeled gondola cars.....	200
Eight-wheeled stock cars.....	95
Eight-wheeled house cars.....	231
Four-wheeled coal cars.....	800
Eight wheeled coal cars.....	2

and a supply of hand cars and trucks for use in repairs of track.

TRACK, BRIDGES, AND BUILDINGS.

The total length of track now laid and in use, is $202\frac{23}{100}$ miles, an increase from last year of $15\frac{48}{100}$ miles.

The total mileage of track is made up of the following items:

	Miles.
Main Line, Wilkesbarre to State Line.....	104 30
Second track in use as such.	32.96
Sidings, and second track used as sidings.....	40.00
Waverly and State Line Railroad, and sidings on same..	3.37
Connection with G. I. & S. R. R., and sidings.....	2.66
Connection with S. C. R. R., and sidings.....	2.87
Sidings at Waverly.....	.39
Sidings at Elmira.....	1.28
Towanda Branch and sidings.....	2.82
Pleasant Valley Branch and sidings.....	6.18
Sidings at West Pittston.....	1.23
Plainsville Branch.....	.50
Mill Creek Branch.....	2.61
Mineral Spring Branch.....	1.06
	<hr/>
Total.....	<u>202.23</u>

Work on second track, below Tunkhannock, has been continued during the year. We have now finished, and in use from Coxtan, northward, $12\frac{2}{10}$ miles of double track. Between end of double track and Tunkhannock, $6\frac{6}{10}$ miles of new second track has been laid and is in use. As fast as the new track is laid and put in use, the first or original track is being torn up and relaid to conform to the new grades and alignment; $14\frac{7}{10}$ miles of track have thus been rebuilt. Part of the remaining distance between Coxtan and Tunkhannock is also graded and ready for track, and the work is still in progress.

The siding at Meshoppen has been lengthened $\frac{56}{100}$ of a mile on the line of second track, and additional sidings have been laid at Coxtan and Waverly. Grading for second track, 3,060 feet in length, has been made in Browntown Narrows, and on Wysauking Tangent 7,800 feet of second track has been graded.

Steel rails have been used for all new track north of Falls Station, and are now being used for all repairs to main track. All the new track is ballasted with broken stone, and only hard wood sills are used in main track.

We have used during the year, in laying new track, 808 iron rails, 3,396 steel rails, 42,645 sills, 12,899 lineal feet of switch ties, 4,299 pairs splice plates, 696 kegs of spikes, 24 steel frogs, &c., and for repairs of track, 5,936 iron rails, 2,936 steel rails, 1,014 old iron rails repaired and relaid, 52,930 sills, 5,422 lineal feet of switch ties, 30 frogs, 250 kegs of spikes, &c.

On the night of Friday, September 15th, two spans of the iron bridge crossing the Chemung River, at Athens, were broken down and thrown in the river, caused by cars in the middle of a freight train getting off the track and knocking down the side, or truss. Through business of all kinds was suspended until noon of the following Monday, by which time a trestle had been erected on which trains passed during the rebuilding of the broken spans, which was completed November 15th.

The single track wooden bridge, $87\frac{1}{2}$ feet in length, crossing the creek at Falls Station, has been taken down and replaced

by two stone arches, each of 35 ft. 8 in. span, and of sufficient width to receive three tracks. New floor beams have been put on Towanda bridge, and the structure otherwise strengthened.

Preparations are now in progress for the erection of double track iron bridges over Lackawanna River and at Tunkhannock Creek. These will be of two spans each, and are respectively 238 and 330 feet in length. They will replace the single track wooden bridges now in use at these points.

A new frame station house, 16 by 36 feet, has been erected at Ransom, and the depots and water tanks at some other points moved to conform to the new location of track.

An addition, equal to the accommodation of ten car loads of cattle, has been made to the stock yards at Waverly, and an increased supply of water provided, by laying an entire new system of pipes.

As indicated in report of last year, the offices of the road were, upon the 9th of October, removed from Towanda to Sayre, and are provided for at present in a temporary building. A two story brick building, 28 by 44 feet in size, is now in course of erection for office purposes, and will be completed early in the spring.

The laying of the third rail on the Erie Railway, between Elmira and Buffalo, was completed May 22d, and formally opened for business by an official excursion from Buffalo to Philadelphia, June 6th. We are thus supplied with an unbroken connection to the west, of uniform gauge with our own road, and the transfer of freight and coal at Waverly, and of passengers at Elmira in a great measure avoided. We have felt the good effects of this improvement in all branches of our business, but more especially in the increase of freight from the west, which we now receive in original cars from all points in the west to which the lines of our connections penetrate. Under the contract with the Erie Railway for the use of this rail, we hauled a portion of the coal passing over it, with our own motive power and crews, 104,911 $\frac{6}{10}$ tons having thus been transported up to close of the year.

Our interests have also been extended and strengthened by the purchase, by the Lehigh Valley Railroad Company, in October of this year, of the Geneva, Ithaca & Athens Railroad, extending from the state line near Sayre, to Geneva, on the New York Central Railroad, a distance of seventy five miles. This road was sold under a foreclosure of the mortgages, and has been reorganized in our interests under the title of the Geneva, Ithaca & Sayre Railroad Company.

Our relations with connecting roads have been harmonious, and the interchange of business has been carried on in a satisfactory manner.

My thanks are due to the employees of all grades, for the zeal and ability with which my efforts for the welfare of the company, and the prompt transaction of its business have been seconded.

Yours, truly,

R. A. PACKER,

Gen'l Superintendent.



