

TWENTY-THIRD  
ANNUAL REPORT

OF THE

Board of Directors

OF THE

Pennsylvania Railroad Co.

TO THE

STOCKHOLDERS,

*February 16, 1870.*

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1870.

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DIRECTORS  
OF THE  
*Pennsylvania Railroad Company,*  
FOR THE  
YEARS 1870 & 1871.

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**BY THE STOCKHOLDERS.**

J. EDGAR THOMSON,	SAMUEL T. BODINE,
JOSIAH BACON,	JOSEPH B. MYERS,
WISTAR MORRIS,	EDWARD C. KNIGHT,
WASHINGTON BUTCHER,	JOHN M. KENNEDY,
GEORGE BLACK, PITTSBURGH,	JOHN RICE.

**BY THE CITY OF PHILADELPHIA.**

WILLIAM ANSPACH,	G. MORRISON COATES,
LEWIS ELKIN.	

**BY THE BOARD.**

THOMAS A. SCOTT,	HERMAN J. LOMBAERT,
EDMUND SMITH,	GEORGE B. ROBERTS.

***PRESIDENT.***

J. EDGAR THOMSON.

***VICE PRESIDENTS.***

THOMAS A. SCOTT,	H. J. LOMBAERT,
EDMUND SMITH,	GEO. B. ROBERTS.

***TREASURER.***

THOMAS T. FIRTH.

***SECRETARY.***

JOSEPH LESLEY.



# ANNUAL MEETING.

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*Philadelphia, February 15th, 1870.*

THE Annual Meeting of the Stockholders of the Pennsylvania Railroad Company was held at 10 o'clock, A. M., at the Assembly Buildings.

The Hon. Daniel M. Fox, Mayor of Philadelphia, was called to the Chair, and Joseph Lesley appointed Secretary.

The Annual Report of the Board of Directors for the year 1869 was read.

On motion of A. J. Derbyshire, Esq., it was

*Resolved*, That the Report of the Board of Directors for the year 1869 be and the same is hereby accepted by the Stockholders, and that, as usual, it be published in pamphlet form for their information.

The following resolution was submitted by Solomon W. Roberts, Esq., and unanimously adopted :

*Resolved*, That the thanks of the Stockholders of this Company are hereby cordially extended to the Board of Director of the Company; also, to its President, J. Edgar Thomson, Esq.; to each of the Vice-Presidents; to the Heads of the several Departments, and to all their subordinates, for the integrity, ability and great success with which they have conducted the business of the Company during the past year.

• The meeting then adjourned.

DANIEL M. FOX,  
*Chairman.*

JOSEPH LESLEY,  
*Secretary.*

# TWENTY-THIRD ANNUAL REPORT.

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Office of the Pennsylvania Railroad Company,  
*Philadelphia, February 12, 1870.*

To the Shareholders of the

Pennsylvania Railroad Company :

Your Directors take pleasure in submitting to you the satisfactory results of the operation of your railways for the year 1869, as follows :

## EARNINGS.

From Passengers, - - - - -	\$3,500,071 06
“ Emigrant Passengers, - - - - -	131,065 93
“ Mails, - - - - -	118,961 91
“ Express Matter, - - - - -	302,654 54
“ General Freights, - - - - -	12,932,656 88
“ Miscellaneous sources, - - - - -	265,401 41
	<hr/> \$17,250,811 73

Amount brought forward, - - \$17,250,811 73

### EXPENSES.

For Conducting Transportation, - -	\$3,503,792 57
“ Motive Power, - - - -	3,679,195 15
“ Maintenance of Cars, - - -	1,464,859 22
“ Maintenance of Road, - - -	3,341,568 10
“ General Expenses, - - - -	213,852 56
	<u>\$12,203 267 60</u>
Leaving net earnings for 1869 of - - - -	<u>\$ 5,047,544 13</u>

The total amount of revenues compared with last year is :

1869, - - - - -	\$17,250,811 73
1868, - - - - -	17,233,497 31
	<u>                    </u>
Increase, - - - - -	<u>\$17,314 42</u>

The changes in the sources of revenue are shown below :

Increase in Regular Freights, - - -	\$50,491 58
“ Emigrants, - - - - -	52,821 64
“ Mails, - - - - -	18,980 66
“ Express Matter, - - - - -	10,773 33
	<u>\$133,067 21</u>
Decrease in First Class Passengers, - -	\$31,832 88
“ Miscellaneous sources, - - -	83,919 91
	<u>115,752 79</u>
Increase as above stated, - - -	<u>\$17,314 42</u>

The apparent decrease in First Class Passengers, shown above, is explained by the circumstance that there is included in the earnings of 1868 for military transportation due in previous years, \$113,433 $\frac{2}{10}$ , whilst the collections from the same source in 1869 were but \$5,655 $\frac{6}{10}$ . By adding this amount



to the reported decrease, and deducting the sum from that received in 1868 (\$113,433 $\frac{24}{100}$ ), it will show an actual increase of First Class Passenger traffic in 1869 over 1868, of \$75,944 $\frac{75}{100}$ .

The gross revenues for 1869 are equal to \$48,186 $\frac{62}{100}$  per mile of the Main Line of railroad.

The whole number of passengers carried in 1868 was 3,747,178 and in 1869 4,229,363—an increase in the number carried of 482,185 or nearly 13 per cent. The average distance travelled by each passenger was 34 $\frac{22}{100}$  miles, being 1 $\frac{82}{100}$  miles less than in 1868; showing this increase still to be mainly upon the local traffic of the line.

The number of tons of freight moved (including 410,966 tons of fuel and other materials transported for the Company) was 5,402,991—embracing 2,329,358 tons of coal. The whole tonnage of your railway exceeds that of last year 680,976 tons, of which increase 264,309 tons is bituminous coal.

The average charge per net ton per mile upon freights during the year was 1 $\frac{718}{1000}$  against 1 $\frac{906}{1000}$  cents last year and per passenger 2 $\frac{51}{100}$  cents against 2 $\frac{71}{100}$  cents last year, or an average decrease in freight charges of 9 $\frac{9}{100}$  per cent. and in passenger charges of 7 $\frac{4}{100}$  per cent. per mile.

The earnings of the Philadelphia and Erie Railroad in 1869, were:

From Passengers, - - - - -	\$ 672,964 46
“ Freights, - - - - -	2,507,082 93
“ Express Matter, - - - - -	31,327 51
“ Mails, - - - - -	24,616 67
“ Miscellaneous sources, - - - - -	26,713 72

Total (exceeding \$11,000 per mile of road), - - - \$3,262,705 29

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Amount brought forward,       -       -       \$3,262,705 29

The operating expenses during the same period,  
were:

For Conducting Transportation,       -       -       \$671,606 07	
“ Motive Power,       -       -       -       -       749,641 82	
“ Maintenance of Cars,       -       -       -       213,546 07	
“ Maintenance of Way,       -       -       -       733,415 17	
	<hr/>
	\$2,368,209 13
To which add 30 per cent. of earnings, payable to the Philadelphia and Erie Railroad Company,       -       -       -       -       956,009 12	
	<hr/>
	\$3,324,218 25

Showing a loss to this Company in operating the line under the lease (in addition to interest upon the capital invested in rolling stock, &c.,) of       -       -       -       -       -       \$61,512 96  
which is \$21,651 69 less than in 1868.

The low rates at which the Philadelphia and Erie Railroad Company is compelled to carry its freights—averaging but 1 $\frac{4}{10}$  cents per ton per mile—and the small passenger business it can command from the sparsely populated country that its road traverses, added to its greater distances as a through line from eastern cities to all points in the West, are the reasons that more than 70 per cent. of its receipts are required to meet its working expenses. The operations of this railway during the past year have been carefully and economically conducted by A. L. Tyler, Esq., its General Superintendent.

In this connection, it may be stated that, owing to some errors in its ' cation, but mainly from financial sacrifices incurred during its construction, this railway, with a single track of only 288 miles in length, laid with lighter iron rails

and but partially ballasted, cost the Philadelphia and Erie Company, without any equipment, \$19,759,171 92. While the Pennsylvania Railroad, passing over a much more expensive country to build a railway upon, with a *double* track of 358 miles, laid with heavy iron, well ballasted, including a third or single track of 29 miles between Lancaster and Middletown and branches to Hollidaysburg and Indiana of 26 miles; in all equal to 771 miles of single railway, exclusive of sidings, is represented by \$21,346,024 56, a difference of less than \$1,600,000 upon the cost of over 265 per cent. more of single track railway.

These facts are referred to at this time only to show why it is that the shareholders of one of these lines have received regular dividends, while the other has been unable to earn them.

The earnings of the Pittsburgh, Fort Wayne and Chicago Railway, under its lease to this Company, for the six months ending December 31, 1869, were,	- - - - -	\$4,146,882 22
And the expenses during the same period were,	- -	2,826,095 92
Balance,	- - - - -	<u>\$1,320,786 30</u>

The semi-annual rent, with the interest on the bonds of the Company, expenses of maintaining the organization, contribution to sinking fund, &c., &c., amounted to	1,283,991 87
Showing a profit in its operation under the lease of	<u>\$36,794 43</u>

The revenues of the lines operated by this Company and the amounts paid for their working expenses, interest and dividends are as follows :

From the Pennsylvania Railroad and Branches,	- -	\$17,250,811 73
From the Pittsburgh, Fort Wayne and Chicago Railway,		
for six months, ending December 31, 1869,	- -	4,146,882 22
From the Philadelphia and Erie Railroad,	- - -	3,262,705 29
Amount,	- - - - -	<u>\$24,660,399 24</u>

Amount brought forward, - -	\$24,660,399 24
And the expenses of operating these lines were :	
Pennsylvania Railroad, - - -	\$12,203,267 60
Pittsburgh, Fort Wayne and Chicago Railway, including rent, &c., - -	4,110,087 79
Philadelphia and Erie Railroad, including 30 per cent. due that company, -	3,324,218 25
Total, - -	<u>19,637,573 64</u>
Leaving the net profits from the three railways for 1869, - - . -	5,022,825 60
From which deduct dividends declared in May and November, each 5 per cent. with the taxes thereon, - - -	\$3,075,643 24
Balance to debit of interest account and discount on bonds, - - - -	888,375 10
Due for the lease of the Harrisburg and Lancaster Railroad, - - - -	135,274 18
Annual payment to the State of Pennsyl- vania on account of interest and prin- pal due upon the purchase of her works between Pittsburgh and Philadelphia, -	<u>460,000 00</u>
	<u>4,559,292 52</u>
Leaving a balance of - - - -	<u><u>\$463,533 08</u></u>

In our last annual report the Board referred in detail to the railway companies controlled through the ownership of a majority of their shares, and it is unnecessary to again mention them further, than to say that they continue to fulfil the objects this Company had in view when this interest was acquired, while they yield a reasonable profit upon the capital invested.

The working expenses of the other lines of railway leased by this Company, not already referred to—all of which are in Pennsylvania—show a balance of receipts over expenses.

The interest held by this Company in the Pennsylvania Canal Company is steadily improving in value, and when its enlargement is completed, it will become a profitable addition to your investments in other works. Its cost now stands upon your books at \$1,101,156.

The coal traffic of this Company is gradually assuming large proportions, and already gives to your railway a constant business at rates that yield a very small profit per ton, but on the amount transported (2,329,358 tons) the net revenue from it is of considerable importance.

Upon the Philadelphia and Erie portion of the Company's lines this traffic is chiefly made up from the transportation of anthracite coal to supply the demands of the oil and lake regions, and amounted in 1869 to 138,138 tons, exclusive of 167,383 tons that were sent to Western New York *via* Elmira. Its bituminous coal-fields are too far from the lakes to compete upon equal terms with those of Ohio and Western Pennsylvania in the markets of the West. A portion of the bituminous coal-fields upon this railway—east of the tributaries of the Ohio—are favorably situated for the Atlantic markets, but they have not yet been developed to any material extent. The demand for bituminous coal of the Allegheny region in the Eastern markets has been confined, until recently, to blacksmiths, but the high price that has prevailed for some years for anthracite coal has caused the bituminous variety to be introduced to a considerable extent for producing steam and for the manufacture of iron. From the limited extent of the

anthracite fields, and the greater cost of mining this variety, it is reasonable to infer that the consumption of the bituminous coals will continue to increase on the sea-board.

Upon the main line of your railway and its branches the movement of anthracite coal is yet inconsiderable, whilst the transportation of the bituminous has been large for the manufacture of gas for eastern cities and the other purposes already mentioned. This material exists in inexhaustible quantities along the whole line of your railway from the summit of the Allegheny to its western terminus, and in the Broad Top mountain (already extensively developed) south of Huntingdon. A branch from the main line at Tyrone to the town of Clearfield cuts the Allegheny coal-field, and upon this, mining is now carried on to a large extent, whilst another branch also extends from the same point to Lock Haven on the Susquehanna river. From Altoona a branch extends to Hollidaysburg and Newry, a distance of 9 miles. The last two mentioned, in connection with a portion of the main line, traverse the valley at the base of the Allegheny mountains for seventy miles, commencing on the west branch of the Susquehanna river, and afford ample opportunities to develop this whole region by short branch lines into the coal-fields at their summit wherever desired. In this valley and in the mountains and valleys that lie on its eastern border there is an abundance of ore easily mined and of a quality that will make the best quality of iron, already celebrated for its strength, and found to be superior to any other in the manufacture of cannon. The proximity of these ores to coal and limestone, gives to this region advantages for the manufacture of iron in all its varieties and uses, a claim equal if not superior to that of any

other—which advantages will doubtless be improved by capitalists—and thus largely increase the population upon your line, and its local traffic, the most reliable business of your road. Your railway is not now dependent upon its through traffic for its dividends, although this item is important and necessary to the interests which brought it into existence.

The original policy of this Company was to reach the traffic of the North-west, West and South-west, by assisting the construction of tributary lines leading to the markets of these sections, but not to control their management beyond the State of Pennsylvania. With this object in view, it gave to the Pittsburgh, Fort Wayne and Chicago Railway Company at several periods of its extremest need large advances to complete its line and preserve its property to its shareholders, under written pledges that its eastward business should follow the direction which prompted and justified this Company in granting the assistance so earnestly solicited. Under the conviction that this agreement was ample it was not believed that further protection to your interests in the North-west was either desirable or important. The rapid growth of this section of the country, however, placed that Company in a few years after its completion in a condition of great prosperity. It then, unmindful of its former obligations, endeavored to seek other eastern connections that it could control, though this Company at all times gave to its business all that it asked—the same rates per mile that it charged upon its own line, upon both passengers and freight. Extensive surveys were accordingly made of the regions east of Pittsburgh by that Company, to find a suitable line for its object, which was followed by material pecuniary advances to a Railway Company whose road

it was proposed to use as a part of this rival route to the East ; but during the progress of these movements an effort was inaugurated by the Erie Railway Board to absorb not only the Pittsburgh, Fort Wayne and Chicago line, but nearly all the western connections of the Pennsylvania Railroad Company, which only failed from a misapprehension of the terms of the law under which they proposed to accomplish their object, and subsequent adverse legislation procured by the President of the Fort Wayne Company.

In view of these extraordinary movements, it became evident to your Board, that this Company must depart from the policy that had heretofore governed it, and obtain direct control of its western connections. Negotiations were accordingly opened with the Directors of the Pittsburgh, Fort Wayne and Chicago Railway Company, who had also become apprehensive (under the vicious system that had been developed in New York, by which stock and bondholders of railways and their agents sold their proxies to vote at the elections of the Company without any regard to the interests involved in the issue), that their own work might fall into hands whose object would be to seriously impair the permanent interests of their constituents.

After a lengthened negotiation with the Directors of that Company, a lease was agreed upon, and this Company entered into possession of the Pittsburgh, Fort Wayne and Chicago Railway on the first of July last. The terms of this lease, which gave to the Shareholders 12 per cent. on their capital, were at the time, considered very onerous, and only justified by the circumstances already referred to. The results of its operation, however, for the first half year, notwithstanding a diminished revenue of \$304,595 90, compared with that of the



same months in 1868, have, through a vigorous retrenchment of expenses, left a net profit of \$36,794 43 over all outlays including the semi-annual contribution of \$52,050 to the Sinking Fund, established to purchase its first and second Mortgage Bonds.

For these favorable results the Company is much indebted to the energetic and economical administration of its affairs by J. N. McCullough, Esq., its General Manager.

The loss in the gross receipts of this railway occurs mainly at Chicago, and is, to a considerable extent due to the low rates upon west-bound traffic that prevailed from the beginning of the lease to near the close of the season. The low price of grain and the bad condition of the common roads leading to railway stations in the West, have been the chief causes of the falling off in the receipts of the line during the past few months. The business of this railway must, however, continue to increase with the advance in population and wealth of the section of country it accommodates, and we believe that its lease will prove a judicious operation for the Company.

The same reasons that induced this Company to become the lessee of the Fort Wayne line, prompted the Pittsburgh, Cincinnati and St. Louis Railway Company, in which this Company holds a majority of its shares, to take at an earlier period, a lease of the lines owned by the Columbus, Chicago and Indiana Central Railway Company. The results of this lease have not proved so satisfactory. The railway was found, contrary to expectations, to be, to a considerable extent, in an unfinished and dilapidated condition, deficient in depot accommodations, with a limited rolling-stock largely out of repair, and shops entirely inadequate to place this machinery in good order.

These deficiencies had to be supplied, and in the meantime its road and rolling-stock could only be placed in condition for economical service at great *extra* cost. Upon a representation of these facts to that Company, modifications in the lease have been made by it, which will, it is believed, render it acceptable to the lessees and to this Company, their largest shareholder.

These several arrangements still left our connections with Cincinnati the great trade centre of the South-west, incomplete, the business with which has been steadily increasing since the termination of the late war. To perfect these, the Pittsburgh, Cincinnati and St. Louis Railway Company has also agreed upon a lease with the Little Miami Railroad Company, of their line, through whose railroad our connection with Cincinnati will be made, thus enabling this Company to participate in the growing prosperity of that city.

The connections of your line with St. Louis, the great city of the Mississippi valley, are now complete by way of Crestline, and nearly so upon the shorter and more direct route through Columbus, Indianapolis, Terre Haute and Vandalia. With these arrangements, all of which will be perfected this year, we will limit our extensions, unless some overruling necessity should require us hereafter to go further. We have no interest in any line beyond the Mississippi river.

Unwilling as we have been to enter upon this policy, a careful review of the subject since its adoption, leaves no doubt as to its wisdom—under the circumstances that have been developed within the past eighteen months.

This Company has not attempted, neither does it propose to absorb the natural connections of either of the other trunk lines.

There is business sufficient to give to each of these Companies ample revenues to meet the interest upon any reasonable cost of their works, if equitable rates between the shipper and railway Company are at all times preserved, and without a resort by one line to take from another by reduced charges, business which it otherwise would have had an equal chance to secure at fair prices. Such attempts, though so often repeated, have at all times failed to secure the professed object in view. They have not infrequently been commenced to influence the market price of the shares of the Company, in disregard of its permanent interests, with a view to benefit the stock speculations of its Managers or their friends; and at other times from the recklessness of a sub-agent, which his superiors refuse to correct or to acknowledge, but more frequently with the unreasonable expectation of gaining some advantage over a rival interest.

There has been much complaint by the public in consequence of the higher charges per mile made by many railway companies for short than long distances. In this policy, to a limited degree, these companies for obvious reasons are fully justified, but in many cases the practice has been carried to an unwarrantable extent. The rule that has governed this Company, is not to charge to any intermediate point, a greater rate than is required to one at a longer distance. Under this rule, which we think entirely defensible, the average charges for the through and local business per ton per mile passing over your line, are nearly equal.

The Pennsylvania Railroad Company was organized mainly with a view to promote the commercial and manufacturing interests of the city of Philadelphia and the interior of the State, and its management has kept these objects steadily in

view, giving at all times to this city the differences in transportation to and from the West due to its geographical position. This policy has had a marked influence in developing the manufacturing industry of the city, but it seems only to have preserved its commercial interest from retrograding. With a view to sustain and promote this interest, every effort has been made by this Company to reduce the local expenses on produce at Philadelphia, that necessarily occur in its transfer at sea-ports, to a minimum; but the pecuniary and shipping facilities required to second these movements, and retain the business of the West at this city until forwarded to its destination appear to be deficient, and in consequence the larger share of it, notwithstanding these advantages, passes on to New York. The Directors, recognizing the importance to the interests of this Company of building up the business of Philadelphia, will cheerfully unite in any reasonable plan by which this object can be secured.

In our last annual report the diversity of railway guages between the East and West was alluded to. Since that period all of your immediate Western connections have reduced the guages of their lines from 4 feet 10 inches to 4 feet 9½ inches, which, when their machinery is adapted to it, will be further reduced to 4 feet 9 inches—the *present* guage of the Pennsylvania Railroad.

Since your last meeting, the State of Pennsylvania has cancelled and disposed of its lien upon the Philadelphia and Erie Railroad to the Allegheny Valley Railroad Company, accepting therefor a second lien upon the line that that Company is building between the Philadelphia and Erie Railroad and its present road at the mouth of the Mahoning; the bonds given

to the State in exchange being guaranteed by the several railway Companies over whose lines the traffic of the new road is to pass to Philadelphia and Pittsburgh, thus insuring to the Commonwealth the ultimate payment of its original claim of three and a half millions of dollars and at the same time enabling the Allegheny Valley Railroad Company to develop, more promptly than it otherwise could have done, a section of the State that is rich in minerals and other products—all of which will remain undeveloped until this highway is constructed.

The final location of this line has not yet been completed, but the character of the country as shown by recent surveys, will render the construction of a railway over it costly. This route is generally known as the "Low Grade Line" between the East and the West, the construction of which will soon be required to accommodate the increasing tonnage between these sections. Its gradients *against* the heavy traffic may be confined within eleven feet per mile. About a half of a million of dollars have already been expended upon its graduation, and its total cost is estimated at about \$5,500,000.

The Directors take pleasure in again expressing the obligations of the Company to its General Superintendent, E. H. Williams, Esq., and his two assistants, John A. Wilson, Chief Engineer, and A. J. Cassatt, Superintendent of Motive Power, for their careful and judicious management of the interests committed to their charge.

Respectfully submitted.

By Order of the Board.

J. EDGAR THOMSON,  
*President.*

DR.

## GENERAL ACCOUNT.

CR.

To Capital Stock.....	\$4,972,000 00	50	By Balance standing on books of the Company for the construction of the railway between Harrisburg and Pittsburgh, including branches to Indiana and Hollidaysburg (in all 276 miles); also for cost of stations, warehouses, shops and shop machinery on the whole road from Philadelphia to Pittsburgh..	\$14,087,741 13	31
" First mortgage six per cent. bonds, due in 1880.....	4,868,540 00		" Balance standing on books of the Company for the purchase of the Philadelphia and Columbia Rail Road.....	5,375,733 43	43
" Second " " " 1875.....	6,826,560 00		" Balance standing to the debit of equipment of road, consisting of 608 locomotives, 394 passenger cars, 123 baggage, mail and express cars, 9,200 freight cars, 1,054 road cars.....	6,182,448 17	17
" General " " " 1910.....	6,826,560 00		" Cost of real estate of company and telegraph line... of the Monongahela and to the Delaware river, including wharves and grain elevator.....	4,271,506 88	88
" Lien of the State upon the Public Works between Philadelphia and Pittsburgh, purchased by this Company, bearing 5 per cent. interest, payable in annual instalments of \$450,000, applicable first to the interest, and the remainder to principal—original amount of which was \$1,500,000.....	6,082,638 14		" 15,365 shares Harrisburg and Lancaster Rail Road stock.....	2,475,437 10	10
" Short bonds or debentures, six per cent, due in 1871.....	1,114,224 00	46	" 25,547 shares Connecting railway stock.....	768,290 00	00
" Mortgages and ground rents, at six per ct, remaining on real estate purchased.....	102,869 32		" 31,636 shares Capital stock of the Philadelphia and Erie Rail Road Company, exclusive of 48,000 shares of preferred 8 per ct. stock in the sinking fund.....	1,271,350 00	00
" Bills and accounts payable, including dividend due to stockholders unpaid.....	5,573,323 10	00	" Stock and bonds upon the line of railway between Pittsburgh and Columbus, Ohio, as standing upon the books of the Company at this date.....	779,637 26	26
" Contingent fund.....	1,000,000 00	46	" 70,231 shares of capital stock of the Pennsylvania Canal Company.....	7,676,695 31	31
" Balance .....	998,956 46		" Amount of bonds and stock of municipal and other rail road corporations.....	1,101,156 00	00
			" Cost of bonds and stocks in the sinking fund, to pay Pennsylvania Rail Road second mortgage bonds, and the bonds of the Harrisburg and Lancaster Rail Road Company.....	6,019,221 01	01
			" Amount of fuel and materials on hand for repairs to locomotives, cars, and maintenance of way, &c., on the Pennsylvania Rail Road.....	2,453,432 36	36
			" Amount advanced to pay for fuel and materials on hand for repairs to locomotives and cars, and maintenance of way for the Philadelphia and Erie Rail Road.....	1,899,428 49	49
			" Amount advanced to operate the Philadelphia and Erie Rail Road.....	407,564 00	00
			" Amount of bills and accounts receivable, and amount due from other rail roads.....	538,337 50	50
			" Balance in hands of agents.....	8,086,147 79	79
			" Balance in hands of treasurer.....	804,182 36	36
				845,743 74	74
				\$65,030,302 52	52

E. &amp; O. B. — PHILADELPHIA, December 31, 1890.

THOS. T. FIRTH, Treasurer.

# REPORT

## OF THE

### General Superintendent.

**Office of the General Superintendent,**  
ALTOONA, Pa., Feb. 1, 1870.

To the President and Directors of the  
Pennsylvania Railroad Company.

GENTLEMEN :—I submit herewith the report of the operations of the Pennsylvania Railroad during the year 1869.

The earnings have been—

From transportation of freight and tolls on individual cars, - - - - -	\$12,932,656 88
“ First-class passengers, - - - - -	3,500,071 06
“ Emigrant passengers, - - - - -	131,065 93
“ Adams Express Company, - - - - -	302,654 54
“ Transportation of U. S. Mails, - - - - -	118,961 91
“ Rents of property, - - - - -	62,226 83
“ All other sources, - - - - -	203,174 58
Total, - - - - -	<u>\$17,250,811 73</u>

The expenses have been—

Motive Power, - - - - -	\$3,679,195 15
Conducting Transportation, - - - - -	3,503,792 57
Maintenance of Way, - - - - -	3,341,568 10
Maintenance of Cars, - - - - -	1,464,859 22
General Expenses, - - - - -	213,852 56
	<u>\$12,203,267 60</u>
Net Earnings, - - - - -	<u><u>\$5,047,544 13</u></u>

The expenses compare with those for 1868, as follows :

	Motive Power.	Conducting Transportation.	Maintenance of Way.	Maintenance of Cars.	General Expenses.
1869.	\$3,079,195 15	\$3,503,792 57	\$2,341,568 10	\$1,464,869 22	\$213,852 56
1868.	3,361,604 42	3,609,233 18	2,268,896 46	1,442,735 90	178,423 92
Increase.	\$317,500 73	.....	\$72,671 64	\$22,123 32	\$35,428 64
Decrease.	.....	\$106,440 61	.....	.....	.....

Total increase of expenses, \$342,283 72.

#### PASSENGER BUSINESS.

The number of Passengers transported during the year, and the number of miles travelled, are shown in the following table:

	Number.	Miles Travelled.
First Class Passengers.....	3,131,476	127,284,786
Emigrant Passengers.....	28,756	9,797,838
Commutation Passengers.....	1,069,131	7,646,028
Total .....	4,229,363	144,728,652

#### COMPARED WITH 1868.

	1869.	1868.	Increase.	Percentage of Increase.
First Class Passengers.....	3,131,476	2,755,520	375,956	13.64 100
Emigrant Passengers.....	28,756	23,844	4,912	20.60 100
Commutation Passengers..	1,069,131	967,814	101,317	10.46 100
Total .....	4,229,363	3,747,178	482,185	.....



A daily line of palace cars between Louisville and New York was established May 1st, by this route, and has been in operation since that date, running in connection with similar cars between Louisville and New Orleans; it forms a through line with but one change of cars between New Orleans and New York and Philadelphia. The addition of new lines of through cars to and from Chicago and Cincinnati, which has been effected during the past year, gives now six daily lines over the Pennsylvania Railroad, viz.: one between New York and Louisville, two between New York and Cincinnati, and three between New York and Chicago.

On the 29th of August an arrangement of through trains was made, with a view of shortening the time between New York, Philadelphia and Chicago, for the accommodation of the through travel. By dispensing with all unnecessary stops the time was reduced to twenty-nine and one-half hours from Chicago to New York, and twenty-seven and a half hours from Chicago to Philadelphia. Trains were run with satisfactory regularity on this time-table until the usual winter change was made, November 14th.

#### FREIGHT BUSINESS.

The freight traffic for the year has shown a gain at all points over that of 1868. During a portion of the summer and fall, reduced rates, brought about by a brisk competition of the several trunk lines, largely augmented the shipments of through freight by this road, but as such shipments were chiefly westward no difficulty was found in moving the traffic promptly.

From October 1st until November 4th, an extended strike prevailed among the miners in the Pittsburgh coal region, completely closing operations at those mines and suspending coal shipments from nearly all points on the Pittsburgh Division west of the Alleghenies. Despite this interruption, however, the coal tonnage for the year shows a gain of twelve per cent. as compared with that of 1868.

Attention is invited to the figures given below, as exhibiting the extent and character of the gain in the freight traffic. Whilst through freights have shown a marked and gratifying increase, it will be seen from the movement of loaded cars given in the table below, at Tyrone, Lock Haven, Blairsville Intersection and Allegheny City, at which points the traffic of the Tyrone Division and West Pennsylvania Railroad respectively is indicated, that the local business in those important branches is being rapidly developed.

During the year 1869 there were transported over the road:

Fuel and other materials for Company use,	410,966 tons.
Regular Freight, - - - -	4,992,025 "

Total for 1869, - - -	5,402,991 "
" " 1868, - - -	4,722,015 "

Increase, - - -	680,976 "
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Percentage of increase,  $14\frac{42}{100}$ .

Included in the regular freight there were moved :

Oil, - - -	156,796 tons.
Coal, - - -	2,329,358 "

Total tons moved one mile, 1869, -	752,711,312
" " " 1868, -	675,775,560

Increase, - - -	76,935,752
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Percentage of increase,  $11\frac{86}{100}$ .

The following table shows the total movement of loaded cars for the year, at different points of the road :

	Loaded Cars.	1869.	1868.	Increase.	Percentage.
West Philadelphia...	Eastward.....	149,522	189,574	9,948	7 12-100
	Westward.....	60,096	55,448	4,648	8 38-100
Harrisburg.....	Eastward.....	165,643	156,474	9,169	5 85-100
	Westward.....	54,901	48,569	6,312	12 99-100
Marysville.....	Eastward.....	34,568	34,245	323	94-100
	Westward.....	10,413	9,011	1,402	15 55-100
Huntingdon.....	Eastward.....	35,651	30,584	5,067	16 56-100
	Westward.....	8,008	5,475	2,533	46 26-100
Tyrone.....	Eastward.....	33,822	24,190	9,632	39 81-100
	Westward.....	4,225	3,307	918	27 75-100
Lock Haven.....	Deliv'd P. & E. R. R.	4,905	3,841	1,064	27 70-100
	Rec'd from " "	1,730	1,492	238	16 96-100
Altoona.....	Eastward.....	153,202	143,975	9,227	6 40-100
	Westward.....	67,139	57,216	9,923	17 34-100
Blairsville.....	Eastward.....	20,911	20,727	184	88-100
	Westward.....	7,178	5,888	1,290	21 90-100
East Liberty.....	Eastward.....	22,441	19,993	2,448	12 24-100
Pittsburgh.....	Eastward.....	62,881	55,196	7,685	13 92-100
	Westward.....	112,190	99,863	12,327	12 34-100
Allegheny.....	Eastward.....	5,438	4,245	1,193	28 10-100
	Westward.....	6,162	5,472	690	12 60-100

The shipments of oil during the year compare with those in 1868, as follows:

	1869.	1868.
From Pittsburgh, - - - -	95,134 bbls.	165,691 bbls.
" Allegheny Junction, - -	532,339 "	590,478 "
Total, - - - -	627,473 bbls.	756,169 bbls.

Decrease, 128,696 bbls., or 17 per cent.

## MOTIVE POWER AND ROLLING STOCK.

The report of the Superintendent of Motive Power and Machinery, which is submitted herewith, shows the total number of locomotives on the Pennsylvania Railroad and Branches at this date to be 477, of which 402 are in actual service and 75 are in the shops for repairs or rebuilding. In addition to the foregoing, there are 110 locomotives on the Philadelphia & Erie Railroad and 21 on the Pittsburgh, Cincinnati & St. Louis Railway, making a total of 608 engines owned by this company.

There have been delivered during the year by builders, in part fulfillment of contracts, one dummy engine, six six-wheeled shifting and fifty-eight ten-wheeled freight locomotives. Of this number, twenty-one ten-wheeled freight locomotives have been rented to the Pittsburgh, Cincinnati and St. Louis Railway Company, and two six-wheeled shifting engines transferred to the Philadelphia & Erie Railroad.

Thirty-eight locomotives have been built in the Company's shops, to fill vacant numbers.

Contracts are outstanding for five ten-wheeled freight engines, to be delivered early in 1870.

## MILEAGE AND TONNAGE.

The mileage of locomotives compares with the tons moved one mile, as follows :

	1869.	1868.	Increase.	Percentage of Increase.
Mileage of Freight Engines.....	6,904,888	6,355,865	551,023	8 66-100
Tons moved one mile.....	752,711,312	675,775,560	76,935,752	11 38-100
Total engine mileage .....	9,574,632	8,693,328	881,304	10 13-100

## PASSENGER EQUIPMENT.

The passenger equipment at this date, consists of 187 passenger cars, of which 175 are in actual service, and 12 in shops for repairs or rebuilding; 57 emigrant cars, 55 baggage cars, 4 mail cars and 43 express cars. Two baggage cars, 6 emigrant cars and 13 new passenger cars have been built in the Company's shops during the year; the latter, after a new and improved design, which has been adopted for this portion of the equipment.

In addition to the foregoing, there are 50 passenger, 15 baggage and 6 express cars in service on Philadelphia & Erie Railroad.

## FREIGHT EQUIPMENT.

The freight equipment in service is as follows:

Box cars,	-	-	-	-	-	-	2,380
Stock cars,	-	-	-	-	-	-	1,192
Gondola cars,	-	-	-	-	-	-	2,400
Coal cars,	-	-	-	-	-	-	720
							<hr/>
							6,692
Cars owned by individuals and other companies,	-						3,798
							<hr/>
Total,	-	-	-	-	-	-	10,490
Total freight equipment in service Dec. 31, 1868,	-						9,261
							<hr/>
Increase,	-	-	-	-	-	-	1,229

This increase has been in cars owned by this company, 484; in cars owned by other companies, 745.

In addition to the foregoing, there are 2,058 freight cars in use on the Philadelphia & Erie Railroad and 450 on the Pittsburgh, Cincinnati & St. Louis Railway, making total freight equipment owned by this company, 9,200 cars.

One thousand and four cars have been added by contract during the year, of which number 554 have been put in use on

this road, and 450 leased to the Pittsburgh, Cincinnati & St. Louis Railway Company.

#### TRACK AND BUILDINGS.

The accompanying report of the Chief Engineer of Maintenance of Way gives in detail the operations of that branch of the Company's service during the past year.

The second track has been completed between Mapleton and Bridgeport, and the road from Philadelphia to Pittsburgh is now all double-track with the exception of the roadway over Susquehanna, Manayunk and Mount Union bridges.

There have been laid during the year 6,271 tons of steel rails, principally of American manufacture. These, in connection with the steel rails previously laid, make a total of 16,227 tons of steel rails now in the track, some of which have been in service for nearly six years, and none of which have as yet worn out.

#### GENERAL REMARKS.

The extension of the Tyrone and Clearfield Railroad, from Phillipsburg to Clearfield, was completed early in the year and the road was opened for business February 1st.

The operations of the main line and branches have been attended with no important interruptions, and the motive power and rolling stock have in general been kept fully employed.

My acknowledgments are tendered to the officers of the several branches of the Transportation Department and their subordinate employes, for the efficient support and cordial co-operation which have been extended to me during the past year.

EDWARD H. WILLIAMS,  
*General Superintendent.*

# REPORT

OF THE

## Superintendent

OF

## Motive Power and Machinery

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**Office of Superintendent of**  
**MOTIVE POWER AND MACHINERY.**  
 ALTOONA, PA., *January 1st, 1870.*

EDWARD H. WILLIAMS, ESQ.,  
 General Superintendent.

SIR:—The following report of the operations of the Motive Power Department for the year ending December 31st, 1869, is respectfully submitted.

The number of locomotives in service and in shops under repairs and rebuilding, January 1st, 1869, was - 434

To which have been added during the year, as follows:

By purchase (new numbers),	-	-	-	50	
Built by P. R. R. to replace engines sold,	-	-	-	3	53
				-	53
Total,	-	-	-	-	487

Deduct locomotives leased to P. C. & St. L. R. W.,	6	
“ “ sold to H. & B. T. R. R.,	1	
“ “ transferred to P. & E. R. R.,	3	10
	-	10

Total number on Main Line and Branches this date,	-	477
	-	477

Their condition is as follows :

In service in good working order,	-	-	-	375
“ “ but requiring repairs,	-	-	-	27
In shops rebuilding, -	-	-	-	7
“ “ under general repairs,	-	-	-	52
“ “ under slight repairs, -	-	-	-	16
Total,	-	-	-	<u>477</u>

Locomotives actually in service January 1st, 1870,	-	402
“ “ “ “ 1869,	-	342
Increase,	-	<u>60</u>

The following tables exhibit the performance of locomotives, and the cost of repairs, fuel and stores.

#### MILEAGE OF LOCOMOTIVES.

	Pass. Trains.	Fr't Trains.	Dist'g Trains.	TOTALS.
Philadelphia Division, - -	617,269	2,049,780	118,084	2,785,133
Middle “ - - -	610,162	2,086,292	92,655	2,789,109
Tyrone “ - - -	109,581	240,967	34,524	385,072
Pittsburgh “ - - -	965,956	2,527,849	121,513	3,615,318
Totals, - - - -	2,302,968	6,904,888	366,776	9,574,632

Total mileage in 1869,	-	-	9,574,632
“ “ 1868,	-	-	8,693,328
Increase,	-	-	<u>881,304</u>



## GREATEST MILEAGE WITH PASSENGER TRAINS.

Philadelphia Div., Engine 142,	Jno. Tilbert, Eng'r, N. Gilman,	}	39,100
Middle " "	27, S. Hoffmaster, "		
Tyrone " "	26, J. S. Dingro, "		47,652
Pittsburgh " "	101, D. A. McHugh, "		33,735
			49,147

## AVERAGE MILEAGE WITH PASSENGER TRAINS.

Philadelphia Division,	-	-	-	-	21,285
Middle " "	-	-	-	-	26,529
Tyrone " "	-	-	-	-	27,895
Pittsburgh " "	-	-	-	-	26,107

## GREATEST MILEAGE WITH FREIGHT TRAINS.

Philadelphia Div., Engine 382,	John Morris, Engineer,	34,117
Middle " "	428, Philip Moore, "	40,565
Tyrone " "	205, Robert Stephens, "	34,495
Pittsburgh, " "	289, H. F. Cassiday, "	28,793

## AVERAGE MILEAGE WITH FREIGHT TRAINS.

Philadelphia Division,	-	-	-	-	23,835
Middle " "	-	-	-	-	23,181
Tyrone " "	-	-	-	-	16,064
Pittsburgh " "	-	-	-	-	18,451

The general average mileage of passenger engines was 24,763  
 being an increase of 5 per cent. over 1868; that of  
 freight engines was - - - - 21,052  
 an increase of  $3\frac{7}{10}$  per cent.

## COST OF REPAIRS, FUEL AND STORES.

	Repairs.	Fuel.	Stores.	TOTALS.
Philadelphia Division, -	287,788 89	187,078 12	31,838 32	506,704 83
Middle " -	246,961 51	205,122 81	28,587 66	480,671 98
Tyrone " -	23,989 71	27,184 43	3,331 27	54,445 41
Pittsburgh " -	566,069 28	278,212 62	52,006 75	896,387 65
Totals 1869, - - -	1,124,748 89	698,147 98	115,863 00	1,938,249 87
" 1868, - - -	1,212,316 99	639,344 83	135,846 52	1,986,908 34

Six new locomotives, with new numbers, costing \$72,000, are included in the "repairs" for 1869, and as new engines costing \$162,000 were also charged to "repairs" during the year 1868, to arrive at a fair comparison of the expenses of the two years, the above amounts should be deducted in both cases. This will show an increase in the cost of repairs of locomotives in 1869 over 1868, of \$2,531 $\frac{9}{10}$ ; an increase in the cost of fuel, of \$58,803 $\frac{1}{10}$ ; a decrease in the cost of stores of \$19,993 $\frac{5}{10}$ , and an increase in the total expenses of repairs, fuel and stores, of \$41,341 53.

This is more than accounted for by the large increase in the mileage, and it will be seen from the following table that there has been actually a marked increase in the cost per mile run in all the items.

TOTAL AVERAGE COST PER 100 MILES RUN.

	Repairs.	Fuel.	Stores.	TOTALS.
1868.	12.08	7.35	1.56	20.99
1869.	11.00	7.29	1.20	19.49
Decrease,	1.08	.06	.36	1.50

The plan adopted during the year 1868 for encouraging the engineers and firemen to economize in the use of fuel and stores, which was described in my last report, was continued during the past year with excellent results. The total saving was \$54,707 $\frac{5}{10}$ , one-half of which sum will be divided as premiums among the men.

The actual saving in quantities per mile run, is exhibited in the following table.

## GENERAL AVERAGE CONSUMPTION OF FUEL AND STORES.

	Pounds of coal used per mile run.	Quarts of oil used per 100 miles run.	Pounds of waste used per 100 miles run.	Pounds of tallow used per 100 miles run.
1868.	64.8	3.75	2.43	4.02
1869.	62.9	2.90	1.90	2.80
Decrease,	1.9	.85	.53	1.22

A similar plan to promote economy in the use of oil for lubricating freight and passenger cars, was adopted in March last. The average consumption of oil per car moved one hundred miles during the year 1868 was taken as a basis, and the Foremen of Car Inspectors were offered one-third of the money value of any saving they might effect under those figures. A saving of \$7,920 $\frac{2}{10}$  has resulted, of which one-third will be distributed in premiums.

The following is a summary of the operations of the machine shops during the year.

Locomotives rebuilt (entirely new),	-	-	-	38
“ had general repairs,	-	-	-	184
“ “ ordinary “	-	-	-	181
“ “ new steel fire-boxes built,	-	-	-	64
“ “ copper half “	-	-	-	2
“ “ new steel boilers	-	-	-	38
“ “ new iron “	-	-	-	10

## TIRES USED.

Steel Tires used,	-	-	-	411
Chilled “ “	-	-	-	237
Iron “ “	-	-	-	37
Total in 1869,	-	-	-	685
“ 1868,	-	-	-	502
Increase, -	-	-	-	<u>183</u>

## WHEELS AND AXLES USED.

	A X L E S .			W H E E L S .
	Iron.	Steel.	TOTALS.	
Locomotive Trucks, - - - - -	96	64	160	618
"    Tenders, - - - - -	87	267	354	1,226
Passenger Equipment, - - - - -	6	931	937	2,448
Freight, - - - - -	1,415	272	1,687	5,236
Totals, - - - - -	1,604	1,534	3,138	9,528

## ROLLING STOCK.

The Passenger Equipment on Main Line and Branches is as follows :

## PASSENGER EQUIPMENT.

	Total number January 1st, 1869.	New numbers built during 1869.	Total number January 1st, 1870.	In shops under repairs, and rebuilding.	In service Jan. 1st, 1870.
Passenger, - - - - -	174	13	187	12	175
Emigrant, - - - - -	51	6	57	9	48
Baggage, - - - - -	53	2	55	3	52
Mail, - - - - -	4	-	4	-	4
Express, - - - - -	43	-	43	8	35
Totals, - - -	325	21	346	32	314

## FREIGHT EQUIPMENT.

	Total number January 1st, 1869.	New numbers added by con- tract during 1869.	Total number January 1st, 1870.	In shops, re- building.	In shops, un- der ordinary repairs.	In service Jan- uary 1st, 1870.
Box, . . . . .	2,406	106	2,512	132	53	2,327
Stock, . . . . .	1,152	148	1,300	108	39	1,153
Gondola, . . . . .	2,161	300	2,461	61	56	2,344
Coal, . . . . .	738	. .	738	18	15	705
Totals, . . . . .	6,457	554	7,011	319	163	6,529

The following cars owned by individuals and incorporated companies, are run regularly on this road :

Penn Gas Coal Company,	-	-	-	-	605
Westmoreland Coal Company,	-	-	-	-	600
Powelton Coal and Iron Company,	-	-	-	-	86
North-western Coal and Iron Company,	-	-	-	-	27
Philadelphia and Reading Coal Cars,	-	-	-	-	700
Kittaning Coal Company,	-	-	-	-	30
Union Line, -	-	-	-	-	1,025
Allentown Line,	-	-	-	-	300
National Line,	-	-	-	-	425
Total,	-	-	-	-	<u>3,798</u>

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Cars in Maintenance of Way Service :

Cabin Cars,	-	-	-	-	-	21
Gondola, "	-	-	-	-	-	164
Dump "	-	-	-	-	-	157
Hand "	-	-	-	-	-	177
Hand Trucks,	-	-	-	-	-	218
Derrick Cars,	-	-	-	-	-	13
Total,						<u>750</u>

## RECAPITULATION.

Passenger Equipment, Number of Cars,	-	-	346
Freight " " "	-	-	7,011
Cars in Maintenance of Way Service, -	-	-	750
Individual Cars, and Cars of other Railroad Companies			
run regularly on Pennsylvania Railroad,	-	-	3,798
Total,			<u>- 11,905</u>

## GENERAL REMARKS.

The condition of the locomotives was steadily improved throughout the past year, and although their average mileage was somewhat greater than during the preceding one, yet the power was at no time overtaxed.

The passenger equipment was maintained in about as good order as at the commencement of the year, though from want of the necessary facilities, it could not be brought up to as high a standard as was desired.

The condition of the freight equipment was improved, and the number of cars in shop was kept at a minimum—the average number out of service being only 206 of all classes.

Three fires occurred during the year, neither of them, however, involving a serious loss. On the night of January 21st,

the freight repair shop at Altoona was destroyed by fire, communicated by an incendiary. It was a frame building of little value, and its loss did not cause any serious delay, as within twenty-four hours the tools destroyed were replaced, and the work was transferred to the Eastern Round House. Thirteen freight cars were consumed with the building.

On the night of the 16th of November a fire broke out in the planing-mill at Altoona, entirely destroying it with all the tools it contained; these latter constituted the principal loss. The old Maintenance of Way shop was taken possession of as a temporary expedient, and equipped with the necessary wood machinery. The work can be done there until the new car shops now being erected are completed.

On the 16th of October the frame engine house at Blairsville was burnt down; the locomotives were all removed without damage.

The machine shops at Mifflin were closed on the 1st of October, and the machinery was transferred to the other shops. As Mifflin had ceased to be a laying-over point for locomotives, the necessity for shops there had also ceased to exist, and it was thought best to concentrate the work at the larger shops.

My acknowledgements are due to the officers and employes of this department, for the satisfactory and efficient manner in which they have performed their duties.

Very respectfully,

A. J. CASSATT,

*Sup't M. P. and Machinery.*





REPORT  
OF  
CHIEF ENGINEER OF MAINTENANCE OF WAY.

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Chief Engineer's Office,  
**MAINTENANCE OF WAY DEPARTMENT,**  
ALTOONA, December 31st, 1869.

EDWARD H. WILLIAMS, ESQ.,  
*General Superintendent.*

SIR:—The following report of the operations of this Department for the past year is respectfully submitted:

*Road-Bed and Road Superstructure.*

On the Philadelphia Division, the extensions of the Mantua yard reported as in progress last year have been continued, and the new sidings brought into use. Retaining walls have been built at various points, amounting to an aggregate of twelve hundred and four feet in length. An arch culvert of six feet span has been built west of Mountville; one of four feet span east of Kinzer's; repairs have been made to eight arch culverts at various points; the masonry of three open culverts has been rebuilt; five circular brick culverts have been constructed to replace defective stone drains, and seven-

teen cattle-guards have been rebuilt on the Harrisburg and Lancaster road.

A flood in the river Schuylkill on October 3d, caused some damage to the Delaware Extension trestle-work, interrupting travel over it for several days.

On the Middle Division, extensions have been made to the retaining walls at Manayunk, Lewistown Narrows and other points. Four cattle-guards and seven box culverts have been rebuilt. Stone-crushers for breaking ballast have been erected, one near Millerstown, and one west of Huntingdon. Various siding extensions have been made, and the second track between Mapleton and Bridgeport has been completed.

On the Pittsburgh Division, a retaining wall has been built at Packsaddle. The grading is in progress for a siding eighteen hundred feet long east of Kittaning Point. The gauge of the tracks between Pittsburgh and East Liberty has been widened to four feet nine and one-quarter inches, and the second set of rails between those points dispensed with. Stone-crushers have been erected east of Galitzin and at Johnstown. It has been found necessary to complete the arching of Allegheny tunnel through the portion not heretofore lined, a length of about eight hundred feet, and to arch Carr's tunnel entire—a length of eight hundred and twenty-five feet. Work was commenced in the spring at these points; most of the necessary excavation has been done in the Allegheny tunnel, and nearly enough stone prepared for the work. At Carr's, the stone masonry has been completed for the whole distance, and the brickwork of the arch completed for about three-fourths of the length of the tunnel. The second track over Johnstown bridge was completed February 27th. The sloping of cuts has been continued during a portion of the year, but is now suspended at most points. The character of the strata along the Pittsburgh Division, through the coal measures, is such that most of the cuts will be a source of expense for some years. The disintegration of the layers of fire-clay and shale will continue to make additional

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work necessary, which can best be done from time to time as the case may require.

The ordinary renewals and repairs of track have been carried on as usual during the year, the quantities of material used, as per the succeeding tabular statement, will indicate the amount of work done. A large amount of ballast has been placed on the road, of which a considerable proportion has passed through the stone-crushing machines. Our experience so far with these machines shows a large saving both in cost and time by their use over the old method of breaking ballast by hand, and would justify the erection of additional machines at convenient points, and the breaking of our whole supply of ballast in this way.

The new tracks laid during the year are as follows :

	Miles	Feet.	Miles	Feet.
Second track between Mapleton and Bridgeport, -		2,440		
" " over Conemaugh bridge at Johnstown,		530		
				2,970
Extensions of branch roads.				
Tyrone & Clearfield Railway—Branches to coal mines,			1	3,920
Sidings on Delaware Extension, . . . . .		2,000		
" at West Philadelphia, . . . . .		4,913		
" in Mantua Yard (west of Bridge St., Phila.),	2	5		
" at Paoli Grove, . . . . .		739		
" Columbia, . . . . .		588		
" Middletown, . . . . .		825		
" Baldwin, . . . . .		1,967		
" Harrisburg, . . . . .		421		
" Rockville, . . . . .		525		
" Marysville, . . . . .		1,175		
" Millerstown, . . . . .		650		
" Lewistown, . . . . .		200		
" Bridgeport, . . . . .		300		
" Huntingdon, . . . . .		600		
" Quarry west of Huntingdon, . . . . .		405		
" Altoona Transportation Yard, . . . . .		4,031		
" " Car Shop " . . . . .		5,605		
" Allegrippas, . . . . .		450		
" East of Allegheny Tunnel, . . . . .		100		
" Conemaugh, . . . . .		180		
" Conemaugh Furnace (private siding purchased), . . . . .		856		
" Derry Quarry, . . . . .		1,156		
" Georges, . . . . .		155		
" Larimer's, . . . . .		55		
" East Liberty, . . . . .		674		
" East of Lawrenceville, . . . . .		750		
" Pittsburgh, . . . . .		877	7	3,802
" on West Penn'a Road, . . . . .		4,149		
" Indiana Branch, . . . . .		1,224		
" Tyrone " . . . . .		3,350		
" Bald Eagle Valley Road, . . . . .		235		
" Tyrone & Clearfield Railway, . . . . .	1	1,730	3	128
Total, . . . . .			13	260
Less track removed, . . . . .				4,263
			12	1,277

The single track on the main line is now limited to the following sections:

	Mile.	Feet.
At Susquehanna Bridge—Rockville, - -	1	559
“ Manayunk “ - - - -		1,184
“ Mount Union “ - - - -		1,222
Total, - - - - -	1	2,965

The number of miles of single track in use at this date is as follows:

Main line, including sidings, - - -	881.7 miles.
Branches owned, “ - - -	54.5 “
Branches leased, “ - - -	226.5 “
Private sidings and branches, - - -	42.5 “
Total, - - - - -	1,205.2 miles.

The following quantities of material have been used during the year:

	Iron Rails. Tons.	Steel Rails. Tons.	Splice Joints.	Spikes. lbs.	Cross-Ties.
Philadelphia to Columbia.....	3,357	1,775	23,440	196,200	129,480
Harrisburg & Lancaster R. R.....	1,048	324	5,544	49,680	37,734
Harrisburg to Altoona.....	5,085	2,261	29,200	196,090	137,211
Altoona to Pittsburgh.....	5,024	1,834	19,543	192,573	133,936
East Brandywine & Waynesburg R. R.....				2,500	4,965
Mifflin & Centre Co. R. R.....				275	1,363
Tyrone Branch.....	84			39,449	3,301
Tyrone & Clearfield R. W.....	644	77	1,133	31,056	17,638
Bald Eagle Valley R. R.....	9			6,625	19,128
Hollidaysburg Branch.....				1,175	1,437
Ebensburg & Crosson R. R.....	3			2,815	2,609
Indiana Branch.....	144		576	4,115	3,784
Western Penn'a R. R.....	415		1,600	9,339	6,979
Totals.....	15,813	6,271	81,096	731,392	498,465

All the iron rails used in repairs were obtained from re-rolling. There have been purchased during the year 5,275 tons of American steel rails, and 1,802 tons of foreign steel rails. There have been laid in the track 6,271 tons of steel rails, and there are now on hand 2,344 tons, making a total of 18,571 tons of steel rails purchased, and 16,227 tons laid in the track to December 31st, 1869.

The use of steel rails has been continued with very satisfactory results since the date of the last report. A few steel rails at some points subjected to particularly severe usage, are showing the effects of the work done over them, but it is legitimate wear, such as might reasonably be expected. Steel rails will, of course, wear out in time, if only by attrition, but it is estimated that in the places where these rails are still doing service, and will probably continue to do so for a considerable time yet, six sets of iron rails would have been completely worn out during the time the steel has been in use, had the track been laid with iron.

A few of the older steel rails, made before drilling was substituted for punching, have broken at the bolt holes or spike slots, and other cases of breakage have occurred, which are clearly chargeable to the rails having been injured at the mill under the straightening press. As these practical points have developed themselves and been communicated to the manufacturers, improvements and modifications in the details of manufacture have been made, the results of which are that rails are now being produced at some of our American mills, than which anything better can hardly be desired.

### *Bridges.*

The fenders at the Schuylkill bridge on the Delaware Extension, partially destroyed by the freshet in October, have been rebuilt; fifty floor beams on this bridge have been renewed. Iron superstructure has been erected at Thirty-fifth Street

bridge for two additional tracks. New track-stringers have been placed on seven bridges on the Philadelphia Division. Twenty-five new floor-beams on Mill creek bridge. New floor-beams on the Union Canal bridge at Middletown, and the following bridges have been painted, viz.: Schuylkill, Valley Creek and Pequea bridges, six over-head farm bridges, and eleven iron-girder bridges. The public road bridges east of Wayne station and west of Rohrerstown have been rebuilt. Six stringer bridges, ranging from six to sixteen feet clear span, have been replaced by iron girders. The masonry of stringer bridges at Caln and Henry Clay Furnace have been rebuilt, and a number of others repaired. At Strickler's bridge, east of Columbia, new abutments have been built, shortening the clear span from 108 feet 6 inches, to 58 feet 6 inches, with the intention of replacing the present wooden superstructure with an iron boiler-plate truss.

The entire floor of the Susquehanna bridge at Rockville, has been relaid in a new shape, covered with tin and painted; about three-fourths of the floor beams have been renewed, also a number of chord pieces. At lower Canal bridge, Rockville, a portion of the track-stringers have been renewed. At Cove creek, Shuman's creek, Juniata creek, Raccoon creek and Neff's bridges, the floor-beams and track-stringers have been renewed, and at Mill creek, Shaver's creek and Huntingdon, new track-stringers have been put down. Little Juniata bridges, Nos. 4, 6, 10, 11 and 12, have all had new track-stringers, and new floor-beams at all except No. 12. Additional lateral bracing has been introduced at Perryville bridge. A portion of the braces and chords have been renewed at Manayunk and Mount Union bridges; at the latter, the extensions of the masonry for second track have been continued during the year, and are now nearly completed, and the eastern pier has been completely rebuilt. At No. 5, the masonry of the abutments has been prepared for the new iron superstructure

which is on the ground, ready to be erected. Two additional lines of trusses have been erected at Vandevander's bridge, to adapt it for double track—the two lines of trusses of the old single-track bridge being together made to form the centre truss of the new bridge, thus utilizing the old trusses, and giving sufficient strength for a double-track bridge. The masonry of No. 10 has been completed, and new iron superstructure of a total length of two hundred feet erected in place of the wooden bridge at that place. A girder bridge west of Tipton has been replaced by iron beams. In the foregoing repairs to Middle Division bridges, there have been used, white oak timber, 13,852 feet, B. M.; white pine, 585,579 feet, B. M. The iron-work and superstructure of the following bridges have been painted, viz.: Nos. 4 and 10, two at Huntingdon, Petersburg bridge, three bridges at Duncannon, and one each at Cove Forge and Millerstown.

The new iron bridge at Johnstown (to replace single track bridge), reported in progress last year, was completed February 27th, and the trusses of the old bridge have been refitted and adapted for the Tyrone Branch, at Tyrone, using two trusses as one to give proper strength. Near Summerhill, there are four bridges, three of one span each and one of three spans, all of the same lengths between supports, viz.: 75 feet. Though all iron bridges they were light in their proportions, being among the first iron bridges built on the road. A new iron bridge of the most recent and approved pattern has been erected in place of the three span bridge, and the old trusses taken down at that place have been erected at the other three bridges, thus doubling their strength. A stringer bridge at Manor Station has been replaced with iron beams. A public road bridge at St. Clair has been rebuilt, and at a greater elevation above the track than the former one. The piers of the Mononahela bridge on the Steubenville Extension, have been thoroughly rippedraped.



The stone masonry built during the year for various purposes of construction and renewal, sums up as follows :

Philadelphia Division,	-	-	-	-	11,730	perches.
Middle	"	-	-	-	11,758	"
Pittsburgh	"	-	-	-	6,152	"
Tyrone	"	-	-	-	2,833	"
Total,					32,473	perches.

### *Engine Houses and Machine Shops.*

At West Philadelphia, a brick building 40 by 77 feet has been erected for the use of the Motive Power Department as a storehouse. Sundry repairs have been made to the various buildings. The outside woodwork of the large engine-house, machine and car shops, and of the engine-house at Paoli have been painted.

At Columbia engine-house, the roof trusses have been repaired, and twenty-one canopies and ventilators have been put up. At Altoona shops, foundations were built for one heating furnace and for a steam riveting machine. At Harrisburg engine-house, the floor of one half the building has been entirely renewed. Extensive repairs have been made at the old engine-house at Pittsburgh, including a new floor and gas and water-pipes.

The wall along Liberty street at the outer depot has been completed, and the shop grounds enclosed. The turn-table that was near the Pittsburgh Passenger Station has been moved to a position in front of the engine-house used by the Pittsburgh, Cincinnati & St. Louis Railway, and an extension of that building westward a distance of thirty-five feet has been made for shop purposes. A blacksmith shop, 21 by 77 feet, has been erected at the same place. The floor of nine stalls of the Conemaugh engine-house has been renewed. The heating of our engine-houses has been much facilitated, by constructing parti-

tions between the entrance tracks and the rest of the building, and placing dampers in the ventilators and canopies.

### *Water, Wood and Coal Stations.*

A frame building, 15 by 30 feet, containing two tubs has been erected at Greenwich, on the Delaware Extension, for a water station, the water being pumped from a well by a wind-mill. The water tubs at Gallagherville and Middletown have been renewed. Small coal platforms have been built at Parkesburg. The wood sheds at Paoli and Leaman Place, the tank-houses at Gallagherville, and reservoir buildings at West Philadelphia, Leaman Place and Collins' have been painted. A new Worthington pump has been placed at Columbia, to pump water for that station.

An additional water tub has been erected at Spruce Creek Station. The Tuscarora wood-shed has been removed. One of the coal platforms at Altoona has been entirely rebuilt and covered. One additional stand-pipe has been erected at Portage Station. The construction of a reservoir at Spring Hill has been commenced. A coal tipple has been erected at Corey's coal mine, on the Pittsburgh Division. The tipple at Penn Station has been rebuilt, also the coaling wharf at Pittsburgh.

### *Passenger and Freight Stations, &c.*

The building at Ninth and Chestnut streets, Philadelphia, used as a ticket office, has been remodelled; a brick addition,  $13\frac{1}{2}$  by  $15\frac{1}{2}$  feet, has been built at the Forty-first Street Station. A three-story stone building, 18 by 30 feet, has been erected at Hestonville, to be used as a passenger station and dwelling; and a stone building at Oakland, for a combined passenger and freight depot, the sizes of the two portions being respectively 27 by 30 feet, and 27 by 36 feet. At Downingtown, a brick warehouse, 30 by  $91\frac{1}{2}$  feet, is nearly completed. A three-story brick building, 17 by 31 feet, with two wings, 22 by  $25\frac{1}{2}$  feet, two stories high, has been erected at Coatesville, for a passenger depot and dwelling-house. A crane has been

constructed at Lancaster warehouse. At Columbia, the buildings on the lots recently purchased at Front and Walnut streets have been torn down, and in their place a brick warehouse erected, 33 by 90 feet, with telegraph and express office adjoining, 25 by 36 feet, and the foundations have been built for a passenger station. A brick building, for combined passenger and freight depot, 35 by 107 feet, is now being erected at Marietta. A frame passenger station, 16 by 20 feet, has been built at Schock's Mills. Sundry repairs have been made to stations generally on the Philadelphia Division. Two stone buildings have been erected at Marysville, for use of the Company's employes stationed at that place—one a double dwelling, 23 by 51 feet, one and a half stories high, the other a three story boarding-house, 36 by 47 feet. A stone passenger station, 23 by 56 feet, has been built at McVeytown, and a stone warehouse, 23 by 48 feet, at Mapleton. A platform, 350 by 25 feet, supported on trestles, with suitable tracks has been built at Marysville, to facilitate the transfer of anthracite coal from the cars of the Northern Central Railway Company, to those of the Pennsylvania Railroad Company. General repairs have been made to stations and platforms at a number of points on the Middle Division.

Frame buildings have been erected at Turtle Creek, 17 by 41 feet, and at Portage, 15 by 29 feet, for use as combined passenger and freight stations. The warehouse at Penn Station has been enlarged by the addition of forty feet to its length. A scale house, 16 by 16 feet, has been built at Homewood, and the Derry scales have been entirely renewed. The stations at Millvale, Wilmore and East Liberty, reported as in progress last year, have been completed. Thirty-eight new pens have been added at East Liberty stock yards; extensive repairs have been made at these yards; two additional water tubs have been erected, and a new well is now being bored to increase the water supply at that point.

Additional sheds have been erected at the Pittsburgh Pas-

senger Depot, affording access under cover to cars standing on any track in that depot. The agent's dwelling, at Wilmore, has been enlarged. A laborer's house has been erected at Turtle creek, and foreman's tool-houses, 16 by 20 feet, at eleven places on the Pittsburgh Division. The ice-house at Pittsburgh has been taken down, to make way for changes in yard tracks, and a new ice-house has been built at East Liberty.

A number of new telegraph poles have been erected, to give the Pennsylvania Railroad Company a complete line of poles from Philadelphia to Pittsburgh. The insulators on the line generally have been cleaned and recoated with a preparation of parafine, and new lines of wire have been run from Philadelphia to Harrisburg, via Columbia, and from Altoona to Pittsburgh.

### *Fuel.*

The following amounts of fuel were consumed during the year :

	Cords of Wood.	Net Tons of Coal.
Philadelphia Division, - - -	6,054	57,642
Middle " - - -	10,622	111,859
Pittsburgh " - - -	7,690	94,967
Tyrone " - - -	1,218	10,736
West Penna. " - - -	600	8,265
Consumed by Locomotives, - -	26,184	283,469
" at Shops, Stations, &c., -	363	22,732
Total, - - - -	26,547	306,201

The rolling stock in the service of this department consists of 15 locomotives, 19 eight-wheeled box cars, 117 eight-wheel wood trucks, 105 four-wheel dump cars, 52 eight-wheel dump cars, 177 hand cars, 218 hand trucks, 12 derrick cars, 2 eight-wheel paint cars, 2 four-wheel lumber trucks, 45 eight-wheel stone trucks, and 1 scaffold car.

#### BRANCH ROADS.

The East Brandywine & Waynesburg Road has been kept in good order, with a moderate expenditure. Twenty-one short stringer bridges have been renewed; a new water tub has been placed in the engine-house at Waynesburg, and the well at that place having failed, a new one has been dug, which now gives an abundant supply of water.

On the Mifflin & Centre County Road, five queen post truss-bridges, between Reedsville and Milroy, have been covered and painted.

The warehouse at Ebensburg, on the Ebensburg & Cresson Road, has been repaired. A line of telegraph poles has been erected between Cresson and Ebensburg, and the wire put up by the Pacific & Atlantic Telegraph Company.

On the Indiana Branch, in addition to current repairs of track, some new trestles have been put up at the canal crossing east of Blairsville, and a number of the timbers in that trestle-work have been renewed. A new coaling platform has been built a short distance east of Blairsville. A tub, 18 feet diameter and 8 feet deep, has been erected at Black Lick water station, and the supply of water at that point increased. 844 feet of new siding have been laid at the coaling wharf, and 380 feet at Blairsville station. A line of telegraph poles has been erected from Blairsville to Indiana, the wire being put up by the Western Union Telegraph Company.

On the Western Pennsylvania Road, a freshet, in July last undermined one of the abutments of Pine run bridge, west of Townsend's Station, and also the masonry of a bridge at Hite's

Station. This masonry has been rebuilt, in the latter case giving a greater width of water way.

On October 29th, the frame engine-house at Blairsville was destroyed by fire; it is now being rebuilt. Some changes of track and extension of sidings have been made at Allegheny junction to accommodate the business passing to and from the Allegheny Valley Railroad. 2,296 feet of new siding have been laid at this place; 1,244 feet at Lincoln Station, and sundry small extensions at other points, amounting to 609 feet of track.

On the Tyrone Branch, the work of revising the Tyrone yard has been continued. 3,350 feet of siding have been laid; a new set of track scales, 112 feet long, have been built, and a frame building, 18 by 34 feet, built in connection with the scales. At the crossing of the Juniata, in Tyrone, one pier and two abutments have been built, to allow of replacing the trestle-work at that place by two spans of iron bridge, each  $77\frac{1}{2}$  feet long.

On the Bald Eagle Valley Railroad, the masonry of 3 stringer bridges and 1 culvert has been rebuilt; the superstructure of 27 stringer bridges renewed; the superstructure of the 3 spans of Flemington bridge has been entirely rebuilt, and 235 feet of new siding has been laid at Lock Haven Intersection. This branch has been kept in good condition, at a moderate expense.

The extension of the Tyrone & Clearfield Railway from Philipsburg to Clearfield was opened for use early in the year, and considerable work has been done towards ballasting and otherwise improving this piece of road. The station-grounds at Clearfield have been graded; a turn-table provided; an engine-house, 57 by 31 feet, passenger station, 51 by 25 feet, and freight depot, 84 by 33 feet erected, and 1,577 feet of sidings laid. The Clearfield creek bridge has been roofed and covered with tin. Sidings have been graded and laid as follows: at McBride's, 423 feet; at Woodlands, 504 feet; at Bigler, 668 feet, and at Wallacetown, 1,088 feet.

An extension of the Morrisdale Branch, near Philipsburg, has been made, a distance of 9,200 feet, developing additional coal lands. Dunbar siding has been lengthened 150 feet. A new water station has been built at Osceola, and a line of pipe, one-half mile long, laid, the former supply of water near that place having been cut off by the working of coal mines.

As the trestle-work on the Moshannon Branch, near Osceola, would soon require rebuilding, if it continued in use, that Branch, from near the Osceola warehouse to its junction with the main line of the Tyrone & Clearfield Railway, has been relocated, and a good line secured, avoiding the trestle-work and with lighter grades than the present road. The graduation and the masonry for a bridge over the Moshannon are nearly completed, and the track can be laid early in the spring. Several bridges on the Moshannon Branch have been repaired. Eight hundred feet of new siding has been laid at Osceola. The track on the old Decatur Branch, being no longer in use, has been taken up and laid on the extension of the Moshannon Branch up Beaver run, a distance of one and a-half miles, to accommodate several saw-mills and coal operations.

At the summit of the Tyrone & Clearfield Railway, it has been found advisable to lower the grade of the main track six and a-half feet, the change extending over a space of eight hundred feet. This, by avoiding the sudden change from an ascending to a descending grade, very much facilitates the movements of trains. 1,800 feet of siding have been laid at this place.

The Western Union Telegraph Company have erected a line of wire on the poles provided last year, from Intersection to Clearfield, and telegraph offices have been opened at all important points.

Very respectfully,

JOHN A. WILSON,  
*Chief Engineer M. of W.*





# REPORT

OF THE

## CHIEF ENGINEER OF CONSTRUCTION.

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**Chief Engineer's Office,  
CONSTRUCTION DEPARTMENT.**  
PHILADELPHIA, *January 1st, 1870.*

J. EDGAR THOMSON, Esq.,  
*President.*

SIR:—The following report of work done in this department during the past year is respectfully submitted.

A platform 500 feet in length, by 60 feet in width, has been erected on one of the new wharves at Greenwich, with twelve shutes for transferring coal to vessels. The trestle-work approach (714 feet in length) is completed, and the requisite tracks laid, with the exception of a short distance on the adjacent embankment, the work upon which is now rapidly drawing to a close.

The Grain Warehouse at West Philadelphia, the construction of which was commenced in November, 1868, is now ready for use, and will be entirely completed in the course of a few weeks.

This building is 555 feet in length, by 125 feet in width, constructed of timber, and covered on the sides and roof with slate. The foundations, to a height of one foot above the ground-floor, are of stone, amounting to 10,950 perches, supported on 5,558

piles. The bins, 600 in number, each one having a capacity of one car-load, are so arranged that grain is discharged into them from cars, and drawn out below into wagons, with very little delay or expense.

In connection with the grain-house is an iron bridge over Thirtieth street, of 63 feet clear span, extending the full width of the building, and supporting six railroad tracks.

A large amount of material excavated in widening the road-bed between Haverford street and Belmont avenue, has been disposed of in constructing the approaches to the Grain House west of Thirtieth street, and the coal platform at Greenwich, and in filling at the trestle-work on Delaware Extension.

New sidings have been laid at various points along the road, a detailed statement of which appears in the Report of the Chief Engineer of Maintenance of Way. The total amount of new track constructed during the year is 9 miles 786 feet, of which 2,970 feet were on main line at Bridgeport and Johnstown; 7 miles 3,802 feet on sidings, 1,224 feet on Indiana Branch, and 3,350 feet on Tyrone Branch.

The grading and masonry of the new line between Athensville and Rosemont, will be completed by the first of March, so as to admit of the tracks being laid during the ensuing summer.

Between Rosemont and Morgan's corner, most of the masonry has been constructed, and preparations made for an immediate commencement of the grading.

Two additional trusses have been erected at the iron bridge over Thirty-fifth street, West Philadelphia, for side tracks.

A boiler-plate bridge, of 62 feet clear span, has replaced the wooden bridge of 110 feet span at Strickler's run.

An iron bridge has also been substituted for wood, at No 10, on Little Juniata, and, in both cases, new masonry constructed.

At Vandevander's bridge of five spans with a total length of 511 feet, two additional iron trusses have been erected for the second track.

Plans and specifications have been furnished to Maintenance of Way Department for sundry changes of bridge superstructure on the western slope of the Allegheny mountain.

The following new buildings have been erected:

- A brick storehouse at West Philadelphia.
- A stone dwelling and passenger-room at Hestonville.
- A stone passenger and freight depot at Oakland.
- A brick warehouse at Downingtown.
- A brick passenger station and dwelling at Coatesville.
- A brick warehouse at Columbia.
- A brick passenger and freight depot at Marietta.
- Two stone dwelling-houses at Marysville.
- A stone passenger station at McVeytown.
- A stone warehouse at Mapleton.
- A frame passenger and freight-house at Portage.
- A frame freight-house at Turtle creek.
- A frame dwelling-house at Turtle creek.

At Altoona an area of about 62 acres has been appropriated for shop purposes, and most of it graded.

Tracks have been laid down, and the following buildings erected, all of brick, with stone foundations, viz.:

Carpenter shop, two stories,	-	-	-	37 by 125 feet.
Wood machine-shop,	-	-	-	65 " 75 "
Iron machine and blacksmith shop,	-	-	-	37 " 129 "
Boiler and engine-house,	-	-	-	15 " 52 "
Paint and tin shop, two stories,	-	-	-	37 " 94 "
Office and store-room, two stories,	-	-	-	27 " 47 "

All of the above were intended for the use of Maintenance of Way Department.

Circular freight car repair-shop, having an outside diameter of 434 feet, and a width of 99 feet 8 inches.

The building is divided by partition-walls into three parts, containing respectively 15, 12 and 11 tracks for cars undergoing repairs, in addition to which are two entrance tracks. Two

of the divisions, containing 26 working tracks, are now completed and in use. The remaining division will not be constructed until required.

The stone foundations are built for the following, viz.:

Passenger car-shop, - - - - -	134 by 214 feet.
Planing-mill, - - - - -	74 " 224 "
Blacksmith-shop, - - - - -	74 " 204 "
Machine-shop, - - - - -	74 " 304 "
Paint and upholstery shop, partly two stories,	74 " 364 "
Office and store-room, two stories, - -	40 " 80 "

All of these buildings, it is expected, will be completed during the ensuing summer.

Considerable additions have been made to the real estate of the Company in the cities of Philadelphia, Harrisburg and Pittsburgh, and at various points along the line of road.

The accompanying statements will show in detail the expenditures made for construction purposes on the Pennsylvania Railroad as well as the Philadelphia & Erie Railroad.

Respectfully,

W. H. WILSON,  
*Chief Engineer.*

REPORT  
OF THE  
CONTROLLER.

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**Controller's Office,  
ACCOUNTING DEPARTMENT.**

PHILADELPHIA, *January 1st*, 1870.

To the President and Directors of the  
Pennsylvania Railroad Company.

GENTLEMEN:—The statements herewith submitted embody the statistics on record in this Department, and exhibit in detail the business for the past year in the Transportation Departments of the Pennsylvania, and Philadelphia & Erie Railroads, the following being a general summary of the same.

*Memorandum Exhibit of Earnings, Expenses, etc., of the Pennsylvania Railroad for 1869.*

Total Earnings for 1869:

From Transportation of Freights, and Tolls from Individual Cars,	-	-	-	-	\$12,932,656 88
" First Class Passengers (including U. S. Tax),	-	-	-	-	3,500,071 06
" Emigrants (including U. S. Tax),	-	-	-	-	131,065 93
" Adams Express,	-	-	-	-	302,654 54
" Carrying U. S. Mails,	-	-	-	-	118,961 91
" Rent from workmens' and other houses,	-	-	-	-	62,226 83
" Sundry sources,	-	-	-	-	203,174 58
					<u>\$17,250,811 73</u>

Total Expenses for 1869:

Motive Power,	-	-	-	-	\$3,503,792 57
Conducting Transportation,	-	-	-	-	3,679,195 15
Maintenance of Way,	-	-	-	-	3,341,568 10
Maintenance of Cars,	-	-	-	-	1,464,859 22
General Expenses,	-	-	-	-	213,852 56
					<u>\$12,203,267 60</u>
Net Earnings to balance,	-	-	-	-	5,047,544 13
					<u>\$17,250,811 73</u>

And showing the following Transportation Balance Sheet:

DR.

To amount of Stock on hand January 1, 1869,	\$1,409,829	86
“ “ Bills during 1869, - -	12,376,400	15
“ “ Pay Rolls during 1869, - -	6,120,661	42
	<u>\$19,906,891</u>	<u>43</u>

CR.

By amount of Expenditures in the following Departments :

Motive Power, - - -	\$3,503,792	57
Conducting Transportation, - - -	3,679,195	15
Maintenance of Way, - - -	3,341,568	10
Maintenance of Cars, - - -	1,464,859	22
General Expenses, - - -	213,852	56
Cost of Construction and Equipment of Road,	4,103,016	36
Individuals and Companies (Gen. Supt's acc't),	1,701,178	98
Road and Shop Stock on hand January 1, 1870,	1,899,428	49
	<u>\$19,906,891</u>	<u>43</u>

The Receipts and Expenditures of the Transportation Department of the Philadelphia & Erie Railroad (by the Pennsylvania Railroad Company Lessee) for the year 1869, are as follows, viz. :

RECEIPTS.

From Freights and Tolls on Individual Cars,	\$2,507,082	93
“ Passengers, - - -	672,964	46
“ Expresses, - - -	31,327	51
“ United States Mails, - - -	24,616	67
“ Sundry sources - - -	26,713	72
	<u>\$3,262,705</u>	<u>29</u>
Excess of Expenses to balance, -	61,512	96
	<u>\$3,324,218</u>	<u>25</u>

## EXPENDITURES.

Conducting Transportation (including 30 per cent. to Philadelphia & Erie Railroad Company),	-	-	\$1,627,615 19
Motive Power,	-	-	749,641 82
Maintenance of Way,	-	-	733,415 17
Maintenance of Cars,	-	-	213,546 07
			<u>\$3,324,218 25</u>

The details of the above show the Earnings and Expenses due the Philadelphia & Erie Railroad for 1869 to be as follows, viz.:

Total Receipts,	-	-	-	\$3,262,705 29
Less Overcharges,	-	-	-	23,693 71
				<u>\$3,239,011 58</u>

And total Expenditures as follows, viz.:

Conducting Transportation,	\$1,627,615 19
Less 30 per cent. to Philadelphia & Erie R. R.,	\$956,009 12
Less Overcharges,	23,693 71
	<u>979,702 83</u>

Conducting Transportation, net,	\$647,912 36
Motive Power, -	- 749,641 82
Maintenance of Cars,	- 213,546 07
Maintenance of Way, -	- 733,415 17

Leaving total working expenses, \$2,344,515 42

The balance-sheet for the Philadelphia & Erie Railroad for 1869 is as follows:

DR.

To amount of Road and Shop Stock on hand January 1, 1869,	
to wit, - - - - -	\$371,351 51
To amount of Bills during 1869, - - -	2,590,397 44
“ “ Pay Rolls during 1869, - - -	1,595,034 50
	<u>\$4,556,783 45</u>



Cr.

By amount of Expenditures in the following Departments, viz.:

Conducting Transportation, - - -	\$1,627,615 19
Motive Power, - - -	749,641 82
Maintenance of Cars, - - -	213,546 07
Maintenance of Way, - - -	733,415 17
Individuals and Companies (Gen. Supt's acc't),	824,711 20
Road and Shop Stock on hand Jan'y 1, 1870,	407,854 00
	<u>\$4,556,783 45</u>

Respectfully submitted,

SAMUEL G. LEWIS,

*Controller.*

## ANNUAL REPORT, 1869. ACCOUNTING DEPARTMENT—STATEMENT No. 1.

Dr. *General Exhibit of Earnings and Expenses of the Pennsylvania Railroad Company for the year ending December 31st.* Cr.

1869. TO AMOUNT OF EARNINGS FROM Freight at Stations, including Tolls on } Individual Cars.....	\$12,932,656 88		1869. BY AMOUNT OF EXPENSES IN Conducting Transportation, Passenger..... Conducting Transportation, Freight..... Motive Power, Passenger..... Motive Power, Freight..... Maintenance of Cars, Passenger..... Maintenance of Cars, Freight..... Maintenance of Way, Passenger..... Maintenance of Way, Freight..... General Expenses, Passenger..... General Expenses, Freight..... By amount of net proceeds to balance.....	Passenger. \$1,021,197 43 794,494 28 461,148 21 835,392 03 53,463 12 1,152,459 78 \$4,318,154 86	Freight. \$2,482,595 14 2,584,700 87 1,003,711 01 2,506,176 07 160,389 44 8,895,084 35 \$12,932,656 88	Totals. \$3,503,792 57 3,079,195 15 1,464,859 22 3,841,568 10 213,852 56 5,047,544 13 \$17,250,811 73
First Class Passengers .....	3,500,071 06					
Emigrant Passengers.....	131,065 93					
Express.....	302,054 54					
Carrying United States Mails.....	118,901 91	4,052,753 44				
Rents.....	62,226 83					
Sundry sources.....	203,174 58	265,401 41				
		\$17,250,811 73				

## STATEMENT No. 2.

*Statement of Earnings and Expenses for 1869, showing the net Earnings for each month during the year.*

MONTH.		GROSS EARNINGS.	EXPENSES.	NET EARNINGS.
January,	. . . . .	\$1,144,386 11	\$1,089,718 42	54,667 69
February,	. . . . .	1,145,027 57	1,017,899 64	127,127 93
March,	. . . . .	1,418,349 21	1,041,205 22	377,143 99
April,	. . . . .	1,544,859 49	1,051,330 75	493,528 74
May,	. . . . .	1,529,682 74	1,042,220 08	487,462 66
June,	. . . . .	1,537,908 42	1,183,790 48	354,117 94
July,	. . . . .	1,379,463 88	1,108,263 23	271,200 65
August,	. . . . .	1,368,354 29	1,091,345 58	277,008 71
September,	. . . . .	1,527,124 54	942,627 48	584,497 06
October,	. . . . .	1,593,472 71	855,207 35	738,265 36
November,	. . . . .	1,610,708 01	876,834 49	733,873 52
December,	. . . . .	1,451,474 76	902,824 88	548,649 88
TOTALS,	. . . . .	\$17,250,811 73	\$12,203,267 60	\$5,047,544 13

# STATEMENT No. 3.

*General Statement of Earnings for the year 1869.*

CLASS.	JANUARY.	FEBRUARY.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPTEMBER.	OCTOBER.	NOVEMBER.	DECEMBER.	TOTALS.
<b>FARE EARNINGS.</b>													
From Freight at Stations, .	\$46,709 11	\$88,529 42	1,082,567 80	1,170,555 39	1,159,564 04	1,190,890 45	1,003,674 01	983,026 26	1,109,763 78	1,168,003 59	1,232,179 92	1,097,383 11	12,932,656 86
Total Freight Earnings, . .	\$46,709 11	\$88,529 42	\$1,082,567 80	\$1,170,555 39	\$1,159,564 04	\$1,190,890 45	\$1,003,674 01	\$983,026 26	\$1,109,763 78	\$1,168,003 59	\$1,232,179 92	\$1,097,383 11	\$12,932,656 86
<b>PASSENGER EARNINGS.</b>													
From:													
First Class Passengers, . .	210,701 18	205,704 68	279,347 85	316,467 39	291,899 32	292,686 53	315,890 86	331,900 18	361,934 50	341,488 78	290,125 03	270,775 91	3,500,071 06
Emigrant Passengers, . .	3,015 36	3,412 44	9,010 13	12,744 72	18,262 60	17,473 91	11,280 35	12,227 39	11,061 47	14,905 32	11,148 31	5,893 93	131,043 93
Adams & Co's Express, . .	15,065 00	13,945 00	15,635 00	15,130 00	15,130 00	15,130 00	15,700 00	15,130 00	15,130 00	15,130 00	15,130 00	15,700 00	181,995 00
" " Addnl, . . . . .	20,979 29	8,355 81	5,318 13	7,070 43	6,729 58	4,838 11	3,156 15	1,869 90	22,263 96	22,263 96	23,558 27	17,100 91	120,659 54
United States Mails, . . .	9,807 61	9,981 69	9,849 13	9,891 77	9,891 77	9,892 10	9,891 77	9,891 77	9,892 06	9,984 10	9,993 77	9,994 35	118,961 91
Total Passenger Earnings, .	\$239,588 44	\$239,549 52	\$319,180 24	\$361,254 81	\$342,003 27	\$339,819 65	\$355,899 13	\$371,259 24	\$401,618 05	\$403,771 11	\$339,965 83	\$319,465 10	\$4,052,753 44
<b>MISCELLANEOUS EARNINGS.</b>													
From:													
Rents, . . . . .	9,263 36	300 00	5,263 26	825 00	11,276 57	430 00	3,110 05	6,771 24	3,897 11	4,548 02	11,770 00	4,762 24	62,226 83
Sundry sources, . . . . .	25,825 20	16,648 63	11,317 91	12,224 79	16,838 86	6,892 32	16,190 71	7,297 55	12,445 60	17,149 99	26,782 71	29,864 31	208,174 58
Total Miscellaneous Earnings, .	\$35,088 56	\$16,948 63	\$16,581 17	\$13,049 79	\$28,115 43	\$7,408 32	\$19,900 74	\$14,068 79	\$16,343 71	\$21,698 01	\$38,552 71	\$34,626 55	\$295,401 41
Total Earnings from all sources, .	\$114,396 11	\$145,027 57	\$1,415,349 21	\$1,544,869 49	\$1,529,662 74	\$1,537,908 42	\$1,379,463 86	\$1,365,354 29	\$1,527,124 54	\$1,595,472 71	\$1,610,708 01	\$1,431,474 76	\$17,250,811 73

## STATEMENT No. 4.—CONDENSED EXHIBIT OF MONTHLY EXPENSES.

*Conducting Transportation, Motive Power, Maintenance of Cars, Maintenance of Way, and General Expenses for 1869.*

MONTH.	CONDUCTING TRANSPORTATION.			MOTIVE POWER.			MAINTENANCE OF CARS.			MAINTENANCE OF WAY.			GENERAL EXPENSES.			TOTALS.
	Passenger.	Freight.	Total.	Passenger.	Freight.	Total.	Passenger.	Freight.	Total.	Passenger.	Freight.	Total.	Passenger.	Freight.	Total.	
January, .	\$53,919 94	\$178,769 88	\$232,719 32	\$663,721 41	\$241,020 75	\$905,742 16	\$4,390 84	\$186,718 33	\$231,109 77	\$70,682 59	\$212,047 77	\$282,730 36	\$9,354 20	\$7,062 61	\$9,416 81	\$1,080,719 43
February, .	74,656 18	191,202 82	265,859 00	55,768 18	286,349 05	342,117 23	44,925 78	78,425 96	123,351 74	66,076 38	196,229 18	264,305 51	4,816 54	14,449 82	19,266 16	1,017,899 64
March, .	77,716 42	197,766 27	275,482 69	72,607 39	221,561 34	294,168 73	40,928 27	106,890 49	146,758 76	77,214 77	231,444 28	306,659 06	3,209 00	9,626 99	12,835 99	1,041,206 22
April, .	82,963 49	194,920 31	277,883 80	88,610 80	216,931 47	305,562 27	51,932 55	88,420 00	140,372 55	78,671 53	235,714 60	314,266 13	3,306 50	9,919 50	13,226 00	1,051,330 75
May, .	80,631 63	192,298 20	272,929 88	86,677 91	266,617 31	353,295 22	39,139 02	65,209 22	104,348 24	80,516 06	241,548 15	322,064 21	4,395 63	13,196 90	17,592 53	1,042,720 06
June, .	91,567 68	232,072 38	323,640 06	86,773 75	251,460 44	338,199 19	46,591 43	68,354 85	117,046 28	102,117 20	306,353 38	408,471 18	6,388 44	19,160 33	25,533 77	1,183,790 46
July, .	101,186 08	207,178 87	308,366 95	84,478 55	254,360 97	338,839 52	31,783 67	76,292 50	106,076 37	91,913 21	275,739 63	367,652 84	8,631 89	11,495 66	15,927 55	1,106,263 23
August, .	89,091 79	201,850 15	290,941 94	75,430 51	234,501 00	309,931 51	35,761 27	90,544 81	126,306 08	87,316 05	261,948 14	349,264 19	3,727 96	11,163 90	14,911 86	1,091,846 58
September, .	82,168 98	221,394 26	303,563 26	100,163 06	210,106 25	310,270 31	31,105 28	68,076 91	99,182 19	52,813 80	159,441 40	211,255 20	4,584 13	13,752 39	18,336 52	942,627 46
October, .	89,561 72	203,425 59	293,007 31	56,763 42	201,680 02	257,443 44	56,979 87	60,768 56	97,748 43	46,227 54	144,682 61	192,910 15	3,534,50	10,573 62	14,098 02	853,207 86
November, .	84,683 12	219,292 05	303,975 17	83,962 94	239,908 75	293,871 69	35,644 36	62,877 29	98,471 65	41,464 44	124,308 37	165,857 81	3,664 54	10,993 63	14,658 17	874,834 49
December, .	82,978 35	242,424 84	325,403 19	58,582 36	257,181 52	315,763 88	22,466 73	46,600 43	69,067 16	38,477 86	116,433 61	153,911 47	9,664 79	26,994 99	36,659 18	907,924 88
Totals, .	1,021,197 43	2,482,595 14	3,503,792 57	794,494 28	2,384,700 87	3,679,195 15	463,659 27	,001,169 85	1,464,859 22	885,392 03	2,506,176 07	3,341,568 10	53,463 12	160,359 44	213,852 56	12,205,267 80

## ACCOUNTING DEPARTMENT—STATEMENT No. 5.

*Expenses of the Transportation Department, Pennsylvania Railroad Company, for the year ending December 31, 1869.*

HEADS OF ACCOUNTS.	CONDUCTING TRANSPORTATION.		MOTIVE POWER.		MAINTENANCE OF CARS.		MAINTENANCE OF WAY.		GENERAL EXPENSES.		TOTALS.
	Passenger.	Freight.	Passenger.	Freight.	Passenger.	Freight.	Passenger.	Freight.	Passenger.	Freight.	
Advertising.....	\$23,254 91	\$375 15							\$2,237 21	\$6,711 64	\$32,678 91
Agents.....	38,699 37	60,481 03									99,180 40
Attendants.....									1,266 56	3,790 72	5,056 30
Baggage Masters.....	46,159 35										46,159 35
Ballast.....											119,642 72
Brakemen.....	67,183 16	403,538 21					\$29,910 67	\$89,732 06			660,721 37
Bridges, Repairs of.....											402,166 05
Car Furniture and Fixture.....	23,144 34	37,141 78					123,041 52	360,124 53			60,286 12
Car Shops and Sheds, Repairs of.....											19,026 09
Car Service.....	18,093 52	18,150 05			\$4,750 48	\$14,269 61					36,243 57
Cars, Cleaning and Inspecting.....	63,790 41	67,472 86			1,142 41	3,427 36					131,263 27
Cars, Repairs of Ballast and Wood.....						961,286 24					4,569 77
Cars, Repairs of Freight.....					490,394 92						961,286 24
Cars, Repairs of Passenger and Baggage.....											450,394 92
Cars, Road and Hand.....											29,934 50
Chairs.....											131,126 41
Clerks.....	43,254 97	17,801 52					7,487 62	22,450 88			282,090 11
Coal.....	63,195 33	184,210 58					32,781 34	98,344 07			595,129 45
Conductors.....			\$92,978 69	\$5,064 50 76			2,530 69	7,592 08	12,455 22	37,365 03	247,405 91
Cotton Waste.....			4,802 31	17,057 80							21,929 11
Cross-Ties.....											204,681 16
Despatchers.....	19,378 80	62,352 87									82,331 77
Drawbacks and Overcharges.....	2,619 99	154,406 73									157,086 72
Engineers and Firemen.....			113,626 85	418,969 78							562,536 63
Engine Houses, Machine Shop and Turn Tables, Repairs of.....											303,047 53
Expenses of Station, except Labor.....	6,067 41	30,614 56	98,261 85	294,785 08							46,261 09
Expenses of Grain Elevator.....		382 33									83,032 64
Expenses on Property.....											192,988 17
Foreign Agents.....	129,910 41	62,957 76									42,263 41
Foreman and Watch Houses, Repairs of.....											37,348 69
Fuel.....											1,171 29
Fuel and Light.....									292 51	578 48	

Feed at Stations.....	6,494 94	2,648 38							9,143 30
Feed for Cows.....	8,019 96	66 50							8,086 46
Feed for Horses, at Engine Houses and Shops.....			3,576 61	10,729 89	250 43	751 29			13,066 23
Incidental.....	18,441 96	47,505 79	11,883 31	84,749 78	1,103 37	8,307 29		12,886 76	217,561 66
Iron Rails.....									183,127 32
Labor at Stations.....	27,154 07	192,883 98	66,941 61	170,824 96					227,166 56
Laborers.....									13,528 51
Light at Stations.....	14,821 43	10,504 12							31,894 73
Light for Cows.....	8,468 10	6,408 41							1,984 73
Locomotive Furniture and Fixtures.....			7,986 16	23,968 68					1,984 73
Locomotives, Repairs of.....			293,187 01	991,661 88					1,984 73
Losses and Damages.....									64,870 69
Losses from Injuries to Individuals.....	24,157 92								24,157 92
Mail Expenses.....	4,233 97								4,233 97
Office Expenses.....									10,899 53
Oil, Tallow, Sperm, Wool, &c.....	11,220 48	61,209 28	11,634 22	48,067 89					69,743 11
Payroll.....									71,064 38
Real Estate.....									
Rail Road, Repairs of—"Labor".....									
Rail Road, Repairs of—"Materials".....									
Salaries of President and other Gen'l Officers.....									
Snow and Ice, Removing.....									
Spikes.....	21,908 30	52,840 92	1,762 14	6,266 57					86,066 95
Stationery and Printing.....	74,356 88	108,474 22							182,831 10
Stations, Repairs of, Rent and Furniture.....	6,938 75	20,816 26							62,980 82
Superintendence and Supervisors.....									26,098 80
Switches.....									52,191 83
Switchmen.....									53,690 78
Tallow.....	9,612 82	28,862 12	13,047 92	39,143 91					38,474 94
Tax on Depots.....	93,529 64		6,792 37	27,898 41					99,292 85
Tax, United States Excise.....									68,966 13
Tax, Tonnage (State).....	88,965 13								136,336 86
Tax, Tonnage Revenue.....	95,576 20								23,792 33
Taxes on Engine Houses and Shops.....			6,948 07	17,844 26					20,666 74
Taxes on Real Estate for Road.....									108,721 23
Teaming.....	898 20	109,125 02							23,116 60
Telegraph, Expenses.....	22,946 01	68,438 90							91,884 91
Telegraph, Repairs of.....									223,947 90
Tools and Machinery, Repairs of.....	29,899 66	49,508 67							8,720 34
Tolls, Bald Eagle Valley Rail Road.....	3,711 36	5,068 98							6,092 66
Tolls, E. Bradywine and Waynesburg R. R.....	1,468 62	3,623 94							16,691 06
Tolls, E. Bradywine and Cresson Rail Road.....	4,410 83	12,274 77							7,602 08
Tolls, Milford and Centre County Railway.....									17,414 01
Tolls, Philadelphia City Rail Road.....									
Tolls, Philad'a, Wilmington and Balt. R. R.....									

## STATEMENT No. 5—Continued.

HEADS OF ACCOUNTS.	CONDUCTING TRANSPORTATION.		MOTIVE POWER.		MAINTENANCE OF CARS.		MAINTENANCE OF WAY.		GENERAL EXPENSES.		TOTALS.
	Passenger.	Freight.	Passenger.	Freight.	Passenger.	Freight.	Passenger.	Freight.	Passenger.	Freight.	
Tolls, Tyrone and Clearfield Rail Road.....	\$1,663 92	\$4,991 76									\$6,655 68
Tolls, West Chester & Phil'a R. R. (via Media).....	81,349 65	96,018 37									130,368 02
Tolls, Western Pennsylvania Rail Road.....	9,661 31	21,353 90									31,015 21
Tolls, Pittsburgh, Cin. and St. Louis R. R.....	491 45	1,474 35									1,965 80
Tolls, Newry Rail Road.....	95 40										95 40
Tolls, Columbia Bridge Company.....											22,027 60
Tolls, Junction Rail Road.....		22,027 60									605,066 77
Track, Labor Repairing.....							\$151 271 72	\$53,816 08			160,531 46
Watchmen.....			\$4,729 30	\$14,188 13			32,903 53	98,710 50			21,950 23
Water, Wood and Coal Stations, Repairs of.....			5,487 51	16,462 72							31,762 99
" " " Expenses of.....			7,040 03	23,822 06							100,018 53
Wood, and Labor, Preparing.....			18,061 00	81,967 44							
Totals.....	1,021,107 43	2,482,595 14	794,494 28	2,884,700 87	\$463,689 27	\$1,001,100 95	835,302 03	2,506,176 07	\$53,463 12	\$160,389 44	12,203,267 60

## RECAPITULATION.

	PASSENGER.	FREIGHT.	TOTALS.
Conducting Transportation.....	\$1,021,107 43	\$2,482,595 14	\$3,503,702 57
Motive Power.....	794,494 28	2,884,700 87	3,679,195 15
Maintenance of Cars.....	463,689 27	1,001,100 95	1,464,859 22
Maintenance of Way.....	835,392 03	2,506,176 07	3,341,568 10
General Expenses.....	53,463 12	160,389 44	213,852 56
Totals.....	3,168,236 13	9,035,031 47	12,203,267 60



## ACCOUNTING DEPARTMENT—STATEMENT No. 6.

*Expenses of Engines, Philadelphia Division.*

## AVERAGE COST PER 100 MILES.

CLASS.	Repairs.	Fuel.	Stores.	Total.
Passenger Engines.....	8-14	5-16	1-04	14-34
Distributing ".....	8-25	4-79	1-11	9-15
Freight ".....	11-39	7-33	1-16	19-87

## STATEMENT No. 7.

*Expenses of Engines, Middle Division.*

## AVERAGE COST PER 100 MILES.

CLASS.	Repairs.	Fuel.	Stores.	Total.
Passenger Engines.....	5-39	4-12	1-84	10-35
Distributing ".....	4-65	5-97	1-04	11-66
Freight ".....	9-49	8-37	1-08	18-94

## STATEMENT No. 7½.

*Expenses of Engines, Tyrone Division.*

## AVERAGE COST PER 100 MILES.

CLASS.	Repairs.	Fuel.	Stores.	Total.
Passenger Engines.....	2-68	4-15	1-71	7-54
Distributing ".....	2-18	9-42	1-07	12-67
Freight ".....	7-10	7-97	1-88	15-95

## STATEMENT No. 7½,

*Expenses of Engines, Pittsburgh Division.*

## AVERAGE COST PER 100 MILES.

CLASS.	Repairs.	Fuel.	Stores.	Total.
Passenger Engines.....	17-40	5-25	1-04	23-69
Distributing ".....	3-98	5-13	1-98	10-09
Freight ".....	13-36	8-75	1-62	23-73

## STATEMENTS Nos. 8 AND 11.

## ACCOUNTING DEPARTMENT.

*Abstract of Passengers and Miles traveled on the whole line of Road and Branches  
during the year.*

1869.	Individual Passengers.	Miles Traveled.	Average Distance.	Equivalent Through Passengers.
First Class Passengers, .	3,131,476	127,284,786	40·6	358,518
Emigrant " . .	28,756	9,797,838	340·7	27,600
Coupon " . .	1,069,131	7,646,028	7·2	21,538
	4,229,363	144,728,652	34·2	407,686

## ACCOUNTING DEPARTMENT—STATEMENT No. 12.

*Freight Earnings of the Pennsylvania Railroad for the year 1869.*

	TOTAL.
Philadelphia to Pittsburgh, . . . . .	\$1,408,024 77
Philadelphia to Way Stations, . . . . .	771,792 81
Way Stations to Philadelphia, . . . . .	3,437,782 85
Pittsburgh to Philadelphia, . . . . .	2,232,915 70
Pittsburgh to Baltimore, . . . . .	204,120 64
Pittsburgh to Way Stations, . . . . .	1,124,837 21
Way Stations to Pittsburgh, . . . . .	820,499 05
Baltimore to Pittsburgh, . . . . .	158,329 27
LOCAL—Eastward, . . . . .	2,116,553 16
“ Westward, . . . . .	657,801 42
Total Freight Earnings, . . . . .	\$12,932,656 88

*Information from Record Books, Accounting Department.*

Tons of Through Freight Eastward.....	470,923	Mileage of Through Freight, Eastward.....	168,690,486
Tons of Through Freight Westward.....	233,243	Mileage of Through Freight, Westward.....	83,500,653
Tons of Local Freight, Eastward, 2,816,560		Mileage of Local Freight, Eastward, 401,674,981	
Tons of Local Freight, Westward, 1,471,299		Mileage of Local Freight Westward, 98,946,192	
Total Tons Moved.....	4,992,025	Total Mileage.....	762,711,312



# REPORT

OF THE

## GENERAL SUPERINTENDENT

OF THE

# PHILADELPHIA & ERIE RAILROAD

**(PENNSYLVANIA RAILROAD CO., LESSEE.)**

**Office Gen'l Superintendent.**

ERIE, PA., *January 1st, 1870.*

To the President and Directors of the  
Pennsylvania Railroad Company.

GENTLEMEN:—The business of this road, for the year ending  
December 31st, 1869, has been as follows :

### GROSS EARNINGS.

Freight,	-	-	-	-	\$2,507,082	93
Passenger,	-	-	-	-	672,964	46
Mails,	-	-	-	-	24,616	67
Expresses,	-	-	-	-	31,327	51
Incidentals,	-	-	-	-	26,713	72
						<hr/>
						\$3,262,705 29

### EXPENSES.

Conducting Transportation,	-	\$671,606	07	
Motive Power, - - -	-	749,641	82	
Maintenance of Way, - -	-	733,415	17	
Maintenance of Cars, - -	-	213,546	07	
				\$2,368,209 13

Net Earnings,	-	-	-	-	\$894,496	16
Deduct proportion earnings paid P. & E. R. R. Co.,					956,009	12
						<hr/>
Loss to Pennsylvania Railroad Company,					61,512	96
						<hr/>

The Philadelphia & Erie proportion of earnings is as follows:

Gross Earnings, - - - - -	\$3,262,705 29
Less U. S. Tax on Pass. and Mails, \$17,439 53	
“ State “ - - - - -	24,292 58
“ Tonnage Tax, - - - - -	9,838 92
“ Drawbacks and Overcharges, -	23,693 71
“ Am't due Lewisburg C. & S. C.	
R. R., - - - - -	743 50
	<u>76,008 24</u>
	\$3,186,697 05
Thirty per cent. of which is - - - - -	<u>956,009 12</u>

The earnings and expenses of 1869, compared with those of 1868, are:

	Earnings.	Expenses.	Net Earnings.
1869.	\$3,262,705 29	\$2,368,209 13	\$894,496 16
1868.	2,804,250 36	2,067,001 06	737,249 30
Increase.	<u>458,454 93</u>	<u>301,208 07</u>	<u>157,246 86</u>

And in detail are:

### EARNINGS.

	Freight.	Passenger.	Mails.	Expresses.	Incidentals.
1869.	\$2,507,082 93	\$672,964 46	\$24,616 67	\$31,327 51	\$26,713 72
1868.	2,101,613 98	631,437 59	21,518 04	30,954 33	18,726 42
Increase.....	\$405,468 95	\$41,526 87	\$3,098 63	\$373 18	\$7,987 30

### EXPENSES.

	Cond'g Trans.	Motive Power.	Main. of Way.	Main. of Cars.
1869.	\$671,606 07	\$749,641 82	\$733,415 17	\$213,546 07
1868.	610,774 32	677,028 49	600,284 40	178,913 85
Increase .....	60,831 75	\$72,613 33	\$133,130 77	\$34,632 22

The gross earnings are equal to \$11,344 59 per mile of main track, and exceed those of 1868  $16\frac{3}{10}$  per cent, of which  $1\frac{9}{10}$  per cent. is due to passenger traffic, chiefly from emigrant travel, and the remainder,  $14\frac{4}{10}$ , from freight business. The expenses are  $72\frac{6}{10}$  per cent. of the earnings against  $73\frac{7}{10}$  per cent. in 1868.

#### MAINTENANCE OF WAY.

In this department the expenses have increased \$133,130 77 over those of 1868, and amount to \$733,415 17, equal to \$2,546 58 per mile of road.

The operations of the department have progressed regularly, although the season has been short and unfavorable. The work of ballasting has been continued, and nearly 48,000 yards of gravel and broken stone placed under the track. At several points on the hill-sides the alignments have been corrected, and curvatures lessened.

The chief increase in expense has been for renewals of rails, amounting to \$87,019 55.

4,806 tons of new and re-rolled iron have been laid in the main track, and 334 tons of steel and steel-headed rails laid in yards and on bridges.

Under the increasing tonnage, the wear of the original iron has rapidly increased, and the quality of the re-rolled iron used for renewals is not so good as the original rails.

The following quantities of material have been used during the year, viz. :

	Eastern Division.	Middle Division.	Western Division.	Total.
Tons Iron Rails, Construction, . .	604	138	264	1,006
“ “ Renewals. . . .	1,607	1,640	1,559	4,806
Tons “ Steel Headed Rails, Renewals, .	77		199	276
“ “ “ “ Construction, .	4			4
“ Steel “ Renewals, .		58		58
Pounds Spikes, “ .	19,045	32,440	31,440	82,925
“ “ Construction, .	47,660	7,950	15,824	71,434
No. Chairs, “ .	291	358	1,050	1,699
“ “ Renewals, .	842	60	803	1,705
“ Stop Chairs, “ .	7,254	4,405	7,483	19,142
Sets Iron Splices, “ .	7,140	5,661	7,806	20,607
“ “ Construction, .	364	266	8	638
“ Wooden Splices, “ .		110		110
“ “ “ Renewals, .		94	3,281	3,375
No. Cross-ties, “ .	25,258	48,599	30,449	104,306
“ “ Construction, .	17,883	3,541	4,042	25,466
Sets Switches, “ .	46	5	9	60
“ “ Renewals, .	9	4	15	28

The Roadway and Bridge Material account is as follows :

Balance on hand December 31st, 1869, -	-	\$131,569 86
“ “ “ “ 1868, -	-	90,409 06
Increase, -	-	<u>\$41,160 80</u>



The extension of sidings has been  $10\frac{674}{1000}$  miles, as follows :

	Feet.
Sunbury, - - - - -	7,383
Kapps, - - - - -	1,000
Lewisburg Freight House, - - - - -	1,089
Catawissa Junction, Milton, - - - - -	3,459
Dewart Freight House, - - - - -	175
Muncy, - - - - -	1,225
Williamsport, - - - - -	2,214
Newberry, - - - - -	128
Wayne, - - - - -	2,062
Lock Haven, - - - - -	7,272
Graham's - - - - -	1,130
Ferney, - - - - -	4,242
Whetham, - - - - -	282
North Point, - - - - -	2,010
Renovo, 2,764 laid, 300 taken up, - - - - -	2,464
Howard's, - - - - -	2,048
St. Mary's, - - - - -	210
Whistle town, - - - - -	300
Wilcox Tannery, - - - - -	1,426
Kane, - - - - -	1,725
Tiona, - - - - -	646
Pattonia, - - - - -	998
Ott's, - - - - -	1,271
Garland, - - - - -	191
Garcelone, - - - - -	210
Union, - - - - -	2,562
Erie O. D., - - - - -	3,691
Erie Lake Depot, 5,177 laid, 231 taken up, - - - - -	4,946

Or,  $10\frac{674}{1000}$  miles. 56,359

Length of Main Track in use is, - - -	$287\frac{510}{1000}$	miles.
“ Sidings “ - - -	$86\frac{558}{1000}$	“
“ Private Sidings in use is - - -	$11\frac{947}{1000}$	“
Total length of track in use, - - -	<u><math>386\frac{015}{1000}</math></u>	“

The repairs of bridges are also in excess of last year, an amount of \$42,661 08.

Queen's run bridge, of 975 feet total length, has been renewed with a Howe truss, and raised  $3\frac{1}{2}$  feet: the previous water-way being insufficient.

Youngsville, Le Boueff and Portage bridges, 500 feet total length, rebuilt.

Bald Eagle and Warren completed, and, with Union bridge, are now in process of covering.

Montgomery and Williamsport bridges proving too light under the heavy traffic, have been arched.

The total renewals amount to 1,682 feet of Howe truss; 287 feet of trestle and stringer bridges; and 2,500 feet of superstructure arched.

At Warren, the new brick station-house, for freight and passengers combined, has been completed and placed in service.

The stock yards at Erie were commenced this fall, and are nearly completed. Arrangements have been made with the city for requisite supply of water. Smaller yards have been built at Sunbury and Youngsville for local accommodation.

At the Erie docks, shutes have been built for transfer of coal from car to vessel on the smaller pier, which has been extended 200 feet. The rock bottom of the intermediate slip has been blasted to a depth of 14 feet, giving a channel from thirty to sixty feet wide for 2,175 lineal feet of wharf room.

#### CONDUCTING TRANSPORTATION.

This account stands on the books of the Company at \$1,627,615 19, including \$956,009 12 due Philadelphia & Erie Railroad Company on lease, deducting which, leaves \$671,606 07, equal to  $28\frac{3}{10}$  per cent. of the expenses.

The increase in freight tonnage is 34 per cent. over that of 1868; but the rates, to meet competition, have been reduced, so that the increase in revenue is only  $19\frac{3}{10}$  per cent., both nearly in the same proportion as for the preceding year.

The comparative movements of loaded cars passing Renovo and Kane are:

	1869.	1868.	Increase.
Renovo, Eastward,	37,052	30,250	6,802
“ Westward,	24,441	13,216	11,225
Kane, Eastward,	33,961	26,435	7,526
“ Westward,	26,454	16,917	9,537

The excess of eastward cars at Renovo, and of westward cars at Kane, represent the respective lumber and soft coal shipments from the Middle Division.

The total increase of westward cars for the year is chiefly in anthracite coal, the shipments of which, to Erie for lake trade and to local stations on the Western Division, amount to over 130,000 tons, giving an increase in gross earnings of over \$200,000. The dock facilities at Erie are now ample, and the trade should continue to increase, although it cannot be expected to maintain the same ratio.

The shipments of grain and other western produce, both by lake and rail, have largely increased, but at rates that left but a small margin of profit.

The completion of the yards at Erie, for the transfer of stock from western roads in connection with the already well-established local trade to the anthracite coal region, should enable this line to secure a large proportion of the supply for that market, as well as a fair share of through business to eastern cities.

The local business, in all departments, shows a moderate increase, attesting the satisfactory developments of the country traversed by the line.

In comparison with the previous year, the total tonnage moved one mile was 175,002,844 against 130,601,092 in 1868, equivalent to 607,649 tons over whole line of road.

## PASSENGERS CARRIED ONE MILE.

	1869.	1868.	Increase.
Passengers, - -	25,044,182	23,433,777	1,610,405

Equivalent to 86,959 over whole line of road.

The average distance traveled by each passenger was 38 $\frac{4}{10}$  miles.

## MOTIVE POWER.

This account is charged with \$749,641 82, an increase of \$72,613 33 over 1868.

The mileage has increased 13 per cent., and the total cost per mile run is 33 cents against 33 $\frac{1}{10}$  in 1868.

Fifteen new freight engines have been added to the stock this year, by purchase, and three passenger engines built at Renovo to fill vacancies; three of the older class condemned and broken up.

The extension of the Renovo machine-shop, mentioned in last year's report, was placed in service in February, and several important tools added to the stock of machinery.

The plan of centering all important repairs at Renovo has been adhered to with satisfactory results in economy of repairs and uniformity of plans.

The round-houses at Renovo and Kane, both common points for the engines of two divisions, are insufficient for proper shelter, and should be extended.

The tables annexed give the operations of the department in detail.

## LOCOMOTIVES.

In good order, - - - - -	65
running order, - - - - -	22
bad order, - - - - -	9
shops for general repairs, - - - - -	8
“ rebuilding, - - - - -	2
Cut up, to be replaced by new engines, - - - - -	3
On Daguscahonda R. R., in bad order, - - - - -	1
Total, - - - - -	110

MILES RUN.

	Passenger.	Freight.	Distributing.	TOTAL.
Eastern Division, - -	177,339	521,212	32,303	730,854
Middle " - -	131,102	627,184	24,823	783,109
Western " - -	166,007	558,427	35,459	759,893
1869, - -	474,448	1,706,823	92,585	2,273,856
1868, - -	472,420	1,448,037	92,405	2,012,862
Increase over 1868, - - -				260,994

*Greatest Mileage with Passenger Trains.*

Eastern Division, Engine 1014,	-	-	-	40,083 miles.
Middle " " 1002,	-	-	-	34,075 "
Western " " 1003,	-	-	-	33,165 "

*Average Mileage with Passenger Trains.*

Eastern Division, - - - - -	25,334 miles.
Middle " - - - - -	26,220 "
Western " - - - - -	23,715 "

*Greatest Mileage with Freight Trains.*

Eastern Division, Engine 1041,	-	-	-	30,463 miles.
Middle " " 1051,	-	-	-	30,761 "
Western " " 1094,	-	-	-	29,638 "

*Average Mileage with Freight Trains.*

Eastern Division, - - - - -	23,646 miles.
Middle " - - - - -	25,087 "
Western " - - - - -	23,268 "
Total average mileage with passenger trains, -	24,971 "
" " " " freight " -	24,040 "

## COST OF REPAIRS, FUEL AND STORES.

	Repairs.	Fuel.	Stores.	Total.
Eastern Division, . .	\$63,645 19	\$56,585 81	\$8,919 99	\$129,150 99
Middle " . .	68,151 11	60,251 54	11,311 04	139,713 69
Western " . .	75,389 64	65,550 29	9,717 96	150,657 89
1869.	207,185 94	182,387 64	29,948 99	419,522 57
1868.	214,108 11	150,674 84	23,164 48	387,947 43
Increase, . . . . .	. . .	31,712 80	6,784 51	31,575 14
Decrease, . . . . .	\$6,922 17			

*Total Average Cost per 100 Miles Run.*

	Repairs.	Fuel.	Stores.	Total.
Eastern Division, . .	8.64	7.78	1.21	17.63
Middle " . .	8.63	7.69	1.46	17.78
Western " . .	10.06	8.58	1.27	19.91
Entire road, Total Av'ge.	9.11	8.02	1.31	18.44

*Comparative Statement of Average Cost per 100 miles for the past five years.*

	Repairs.	Fuel.	Stores.	Total.
1865.	16.45	15.35	2.40	34.20
1866.	14.29	12.67	1.67	28.63
1867.	11.87	9.92	1.30	23.09
1868.	10.64	7.49	1.15	19.28
1869.	9.11	8.02	1.31	18.44

*Amount of Material on hand at the different Shops.*

	Dec. 31, 1868.	Dec. 31, 1869.	Increase.	Decrease.
Sunbury, . . . .	\$28,304 56	\$19,501 30		\$8,803 26
Renovo, . . . .	129,260 25	137,217 51	\$7,957 26	
"    Iron Foundry, .	660 15	537 26		122 89
"    Brass " .	1,880 33	342 20		1,538 13
"    Wheel " .	25,558 11	29,963 08	4,404 97	
"    Oil Works, .	16,311 97	11,191 91		5,120 06
Kane, . . . .	24,718 65	27,269 85	2,551 20	
Erie, . . . .	27,397 15	30,088 53	2,691 38	
	254,091 17	256,111 64	17,604 81	15,584 34
		net	2,020 47	

*The Consumption of Fuel, during the year, was as follows :*

	Cords of Wood.	Net Tons Coal.
Eastern Division, . . . . .	2,743·3	22,062
Middle " . . . . .	1,545·3	26,513
Western " . . . . .	2,593·6	27,098
Consumed by Locomotives, . . . .	6,882·4	75,673
"    at Shops, Stations, &c., . .	160·5	6,341
	7,043·1	82,014

*The Stock on hand, December 31st, 1869, was as follows:*

	Cords of Wood.	Net Tons Coal.
Eastern Division, . . . . .	896·7	1,022
Middle    "    . . . . .	800·3	1,209
Western   "    . . . . .	501·5	1,101
	2,198 7	3,332

#### MAINTENANCE OF CARS.

This account, amounting to \$213,546 07, represents the total car repairs, of which \$202,100 23 is due to passenger and freight stock, and the remainder, \$11,445 84, to repairs, ballast and wood-cars, car-shops, sheds, etc.

The following tables will show the condition of the rolling-stock.

#### PASSENGER EQUIPMENT.

	On hand Dec. 31, 1869.	Built at Renovo.	Total.	To be Rebuilt.	In Shops for slight Repairs.	Total in actual Service.
Passenger Cars, . .	50		50	8	3	39
Baggage   "    . .	15		15	6	. .	9
Express    "    . .	6		6	. .	2	4
Total, . . . . .	71		71	14	5	52



## FREIGHT EQUIPMENT.

	On hand Dec. 31, 1898.	Built by Con- tract.	Built at Renovo.	Built at Kane.	Total.	Other service.	To be Rebuilt.	In Shops for slight repairs.	Total in actual service.
Box Cars, . . .	412	100	94	43	649	46	30	17	556
Gondola Cars, . . .	1,039	200	..	..	1,239	25	43	32	1,139
Stock Cars, . . .	47	53	..	..	100	..	..	1	99
8-wheel Coal Cars, .	30	..	..	..	30	..	1	..	29
4-wheel " " .	40	..	..	..	40	..	3	..	37
	1,568	353	94	43	2,058	71	77	50	1,860

## IN MAINTENANCE OF WAY DEPARTMENT.

Box Cars, -	-	-	-	-	-	-	15
Gondolas, -	-	-	-	-	-	-	52
Dumps, -	-	-	-	-	-	-	62
Hand Cars, -	-	-	-	-	-	-	80
" Trucks, -	-	-	-	-	-	-	86
Derrick Cars, 4-wheel, -	-	-	-	-	-	-	6
" " 8-wheel, -	-	-	-	-	-	-	3
Total,	-	-	-	-	-	-	<u>304</u>

## RECAPITULATION.

Passenger Cars, -	-	-	-	-	-	50
Baggage " -	-	-	-	-	-	15
Express " -	-	-	-	-	-	6
Freight " -	-	-	-	-	-	2,058
Maintenance of Way, -	-	-	-	-	-	304
Total number of Cars, -	-	-	-	-	-	<u>2,433</u>

## MISCELLANEOUS.

The following exhibits show in detail the absolute operations of the past five years:

*Exhibit of Passenger Traffic during the past five years.*

	Mileage.	Passengers moved one mile.		Receipts.		Expenses.		Net Earnings.	
		Total.	Per Engine Mile.	Total.	Per Passenger per Mile.	Total.	Per Passenger per Mile.	Total.	Per Passenger per Mile.
1865	449,304	27,455,422	61	\$983,668 53	3 <sup>58</sup> / <sub>1000</sub>	\$730,993 88	2 <sup>66</sup> / <sub>1000</sub>	\$252,674 65	92 <sup>0</sup> / <sub>1000</sub>
1866	502,624	23,310,330	46	793,012 50	3 <sup>40</sup> / <sub>1000</sub>	715,830 24	3 <sup>07</sup> / <sub>1000</sub>	77,182 26	331 <sup>0</sup> / <sub>1000</sub>
1867	510,189	21,096,850	41	698,073 35	3 <sup>30</sup> / <sub>1000</sub>	640,232 49	3 <sup>03</sup> / <sub>1000</sub>	57,840 86	274 <sup>0</sup> / <sub>1000</sub>
1868	495,152	23,433,777	47	699,074 19	2 <sup>98</sup> / <sub>1000</sub>	547,388 11	2 <sup>33</sup> / <sub>1000</sub>	151,686 08	647 <sup>0</sup> / <sub>1000</sub>
1869	494,632	25,044,182	50	752,007 06	3 <sup>00</sup> / <sub>1000</sub>	554,881 76	2 <sup>16</sup> / <sub>1000</sub>	197,125 30	787 <sup>0</sup> / <sub>1000</sub>

*Exhibit of Freight Traffic during the past five years.*

	Mileage.	Tons moved one mile.		Receipts.		Expenses.		Net Earnings.	
		Total.	Per Engine Mile.		Per Ton per Mile.		Per Ton per Mile.		Per Ton per Mile.
1865	573,524	32,123,218	56.91 100	\$1,053,812 86	3.38 100	\$991,053 87	3.98 100	\$62,758 99	1.95 100
1866	926,486	66,736,892	72.93 100	1,696,456 63	2.54 100	1,319,561 63	1.97 100	376,895 00	5.65 100
1867	1,094,637	80,574,068	73.61 100	1,575,809 92	1.95 100	1,310,763 70	1.92 100	235,046 22	3.39 100
1868	1,517,710	130,601,092	86.98 100	2,052,622 35	1.57 100	1,467,059 13	1.23 100	585,563 22	4.48 100
1869	1,779,224	175,002,844	98.36 100	2,453,744 85	1.40 100	1,756,373 99	1.00 100	697,370 86	3.99 100

*Exhibit of the Total Working of the Road during the past five years.*

	Mileage.	Proportion of Mileage.		Receipts.	Expenses.	Net Earnings.	Per cent. Cost of working Road.	Philadelphia & Erie Proportion.	Pennsylvania Railroad Company's Loss.
		Pass'gr.	Freight.						
1865	1,022,828	43·9	56·1	\$2,037,481 39	\$1,722,047 75	\$315,433 64	84½	\$598,708 00	\$283,274 36
1866	1,429,110	35·2	64·8	2,489,469 13	2,035,391 87	454,077 26	82	732,738 80	278,661 54
1867	1,604,826	31·8	68·2	2,273,883 27	1,950,996 19	322,887 08	85½	677,239 51	354,352 43
1868	2,012,862	24·6	75·4	2,751,696 54	2,014,447 24	737,249 30	73	820,423 95	83,174 65
1869	2,273,856	21·8	78·2	3,205,751 91	2,311,255 75	894,496 16	72	956,009 12	61,512 96

The influx of travel to the oil region, in 1865, swelled the passenger receipts of that year, since when they have been drawn chiefly from local sources, and not remunerative. The development of the country will gradually remedy this; but the bulk of the net resources, and any resulting profit to the Lessee, must be derived from freight traffic.

The tonnage of the road shows a constant and legitimate increase from both through and local sources. Although the rates of freight have, by competition and lowering markets, been yearly reduced till now far below an average, yet the cost of transportation by the enlargement of the business and decrease of unprofitable mileage has met the reduction so that the net results, per ton, remain nearly the same.

The effect of the western coal trade in balancing the eastern tonnage, is shown by the increase in tons of freight hauled to the engine mile from 56, in 1865, to 98, in 1869.

During the season of lake navigation, the road-bed has been taxed to the utmost capacity, to remove the traffic. At all the grades where assistant power is used, the needs of double-track were severely felt, and cannot, with a proper regard to safety and economy, be longer deferred.

The Lewisburg Branch,  $1\frac{6}{7}$  miles long, was opened July 23d, and has since been operated by this Company.

The Danville, Hazleton & Wilkesbarre Railroad was opened on November 18th, from Sunbury to Danville. The extension of this road to the Black Creek region will open another source of coal supply.

Mr. John Pitcairn, Superintendent Middle Division, resigned on July 1st, to assume the more responsible position of General Manager of the Oil Creek & Alleghany Railroad. His vacancy was filled by Mr. Theodore N. Ely, of the Engineer Department.

The operations of the road have been carried on without interruption, except by a flood in the Alleghany river, January

9th, which swept out the false works of the centre span of Warren bridge, then in process of renewal. Owing to the drift ice and force of the stream, the river was impassable for two days, after which trestles were set up, and trains passed over on the 14th.

All of which is respectfully submitted,

ALFRED L. TYLER,  
*Gen'l Superintendent.*









