

TWENTIETH
ANNUAL REPORT
OF THE
Board of Directors
OF THE
Pennsylvania Railroad Co.
TO THE
STOCKHOLDERS,
FEBRUARY, 19, 1867.

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DIRECTORS
OF THE
PENNSYLVANIA RAILROAD COMPANY,
FOR 1867-1868.

BY THE STOCKHOLDERS.

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

BY THE CITY OF PHILADELPHIA.

LEWIS ELKIN, WILLIAM ANSPACH,
G. MORRISON COATES.

BY THE BOARD.

THOMAS A. SCOTT, HERMAN J. LOMBAERT.

PRESIDENT,
J. EDGAR THOMSON.

VICE-PRESIDENTS,
THOMAS A. SCOTT, HERMAN J. LOMBAERT.

TREASURER,
THOMAS T. FIRTH.

SECRETARY,
EDMUND SMITH.

ANNUAL MEETING.

Philadelphia, February 19, 1867.

The Annual Meeting of Stockholders of the Pennsylvania Railroad Company was held at 10 o'clock, A. M., at the Board of Trade Rooms.

On motion of Mr. Solomon W. Roberts, the Hon. Morton McMichael, Mayor of the City, was called to the Chair, and Edmund Smith appointed Secretary.

The Secretary read the Annual Report of the Board of Directors for the year 1866.

Mr. H. N. Burroughs moved.

That the Report of the Board of Directors be and the same is hereby accepted by this meeting, and that it be referred to the incoming Board for publication.

Col. Page offered a resolution as a substitute, which was seconded, on behalf of the Board of Directors, by Theodore Cuyler, Esq. After some modification the resolution introduced by Col. Page was adopted, as follows :

Resolved, That the Report be referred to a special Committee of seven Stockholders for examination, and that the said Committee be further specially authorized and directed to examine into and report upon the expediency of issuing additional stock and

borrowing more money, and further to examine into and report upon the operation and working of the systems of discrimination, of free passes, and of private freight expresses, and to what extent the officers and employees are interested in the last, and the effect these have had and still have upon the earnings of the Road and the rights and interests of the Stockholders, with power to send for persons and papers, and report the result of their investigations to an adjourned meeting of the Stockholders, to be held on the last Tuesday in April next, at such hour and place as notice may be given by public advertisement—the Board of Directors in the meanwhile to cause the Annual Report to be printed for the information of the Stockholders.

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

Resolved, That the Committee of seven Stockholders, as provided for in the resolution just adopted, be appointed by the Chairman.

The meeting then adjourned to meet on Tuesday, the 30th day of April, 1867.

MORTON McMICHAEL,

Chairman.

EDMUND SMTH,

Secretary.

TWENTIETH ANNUAL REPORT.

Office of the Pennsylvania Railroad Company,

Philadelphia, February 19, 1867.

To the Stockholders of the

Pennsylvania Railroad Company.

The following statements will exhibit the financial condition of the Company on the 1st of January last, and the earnings and expenses of your Railroads and Canals during 1866.

DR.

	DOLLARS.	CTS.
To Capital Stock.....	20,000,000	00
" First Mortgage 6 per cent. Bonds.....	4,980,000	00
" Second " " ".....	4,904,840	00
" Lien of State upon the public works sold to this Company, bearing 5 per cent.....	6,600,000	00
" Short Bonds, or Debentures, 6 per cent.....	1,554,015	75
" Mortgages and Ground Rents, 6 per cent.....	170,184	82
" Bills and Accounts payable, including dividends due to Stockholders, unpaid.....	3,062,144	45
" Extra Dividend Fund.....	1,110,000	00
" Contingent Fund.....	1,000,000	00
" Harrisburg and Lancaster Railroad Company's Stock.....	1,182,550	00
" Harrisburg and Lancaster Railroad Company's Bonds	700,000	00
" Balance.....	870,415	02
	<u>\$46,134,149</u>	<u>54</u>

CR.

	DOLLARS	CTS.
By Balance standing on the Books of Company for the Construction of the Railroad 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.....	\$13,500,000	00
" Cost of Harrisburg and Lancaster Railroad, when delivered to this Company, including Branch to Columbia, (in all 55 miles).....	1,882,550	00
" Balance standing on the Books of the Company, for the purchase of the Philadelphia and Columbia Railroad and the Pennsylvania Canals.....	6,600,000	00
" Balance standing to debit of Equipment of Road, consisting of 452 Locomotives, 240 Passenger Cars, 103 Baggage, Mail and Express Cars, 6,953 Freight Cars, and 923 Road Cars.....	3,371,214	93
" Cost of Real Estate of Company and Telegraph Line....	3,421,480	91
" Extensions of Pennsylvania Railroad to the South Bank of the Monongahela and to the Delaware River, including Wharves and Grain Elevator.....	2,121,157	77
" 14,533 Shares Harrisburg and Lancaster Railroad Stock.....	30,896,408	61
" Western Pennsylvania Railroad Stock and Bonds....	728,650	00
" Cost of First and Second Mortgage Bonds, Pittsburgh and Steubenville Railroad Company.....	183,450	00
" Steubenville and Indiana Railroad First Mortgage Bonds, owned by Company.....	733,206	50
" Philadelphia and Erie Convertible 7 per cent. Bonds, (the remainder of the \$3,000,000 loan being in Sinking Fund).....	1,262,651	22
" Amount of other Bonds and Stocks of Municipal and Railroad Corporations.....	439,000	00
" Cost of Bonds and Stocks in Sinking Fund.....	1,670,342	74
" Amount of Fuel and Materials on hand for repairs to Locomotives, Cars and Maintenance of Way on Pennsylvania Railroad.....	1,996,367	68
" Amount advanced to pay for Fuel and Materials on hand for repairs to Locomotives, Cars and Maintenance of Way for Philadelphia and Erie Railroad.....	1,375,404	10
" Amount advanced to operate Philadelphia and Erie Railroad.....	449,220	29
" Amount of Bills and Accounts Receivable and Amount Due from other Railroads.....	725,130	02
" Balance in hands of Agents.....	4,148,063	93
" Balance in hands of Treasurer, including \$420,000 U. S. 5-20's.....	577,018	59
	1,043,241	46
	<u>\$46,134,149</u>	<u>54</u>

The Shareholders will perceive, by comparing the above items with their cost, as shown in previous reports, that in addition to the payment of dividends upon your *original* investment, equal to 46 per cent. above legal interest, the cost of your Road from Philadelphia to Columbia has been reduced \$900,000, and from Harrisburg to Pittsburgh, \$6,426,855, from the surplus profits of the Company; and the Equipment of the Line, which has cost \$10,603,559 55, is now represented at \$3,371,214 93.

The Sinking Fund, which cost \$1,996,367 68, it is believed is ample, with its accruing income, to take up at maturity the debt of the Harrisburg and Lancaster Railroad Company, the Second Mortgage Bonds of this Company, and still leave in it all the stocks that it is important that this Company should retain for the security of its traffic. This conservative policy has been pursued in view of the adventitious character of the traffic of the line during the past five years, and for the purpose of giving to the Company a financial strength which will render the continuance of its dividends certain, independent of the action or policy of rival lines.

The Company has been placed in this strong position while it has, at the same time, to a larger extent than any other Corporation of the kind, promoted the development of the interior of the Commonwealth by aiding the completion and extension of other Railroads where private capital would not incur the risks of such investments.

The Pennsylvania Railroad was commenced under the sanguine hope that it could be completed and equipped *without incurring a debt*. The efforts of the Company in this direction, in view of the great abuse that had attended the financial operations of the earlier corporations of this State, were eminently wise and worthy of an earnest effort to carry them into effect. But after some years of persistent labor it became evident that the enterprise was too great for the local capital of this City without submitting to a delay in its completion, which neither the commercial prosperity of Philadelphia, nor the interest of the shareholders of the Company would justify. This policy was therefore abandoned for one which limited the mortgage indebtedness of the Company to its *capital stock*.

At the commencement of its work, the views of the Company extended only to the construction of a railway between Harrisburg and Pittsburgh. But in operating such a line in connection with the uncertain and frequently adverse management of the Philadelphia and Columbia Railroad, under the State authorities, it became evident that it must fail to meet the just expectations of its projectors, unless an independent connection could be made with its commercial depot, or a lease or purchase of the existing lines effected. After many abortive efforts, this object was accomplished by a lease of the Harrisburg and Lancaster Railroad, and the purchase of the State improvements at a high price, but upon a satisfactory credit. The great point, however, of securing harmonious action throughout the line, from Philadelphia to Pittsburgh, was accomplished, which at once imparted new life and vigor to the enterprise, and insured its prosperity.

It was early foreseen that a trunk line, intended to accommodate the traffic between the East and West, would fail in its object if wholly dependent upon the uncertain navigation of the Ohio River as a feeder. The earlier commencement of the other trunk lines had already diverted the routes of the railroads in progress from the commercial centres of the West towards the East, to their works. To overcome this disadvantage, it became essential that other lines connecting your road with these trade centres of the West should be commenced, and to effect this, direct and efficient aid by this Company towards their construction was necessary. So fully impressed were the Shareholders of this Company at the time, of the importance of this movement, that, in voting such aid, they exceeded the views of the Directors. The three principal lines selected for

such aid were one to Cincinnati, a second to the centre of Ohio, at Columbus, and a third towards Chicago. The connection with Cincinnati via Marietta was adopted, and failed from the inadequate means provided to construct a line over what proved to be an unexpectedly rugged country. The line to Chicago was only saved as an investment, after the failure of the credit of that Company, by much labor and large additional outlays by this Company to secure its completion. These efforts were crowned with entire success, and the enterprise, both financially and as a feeder of your main line, has met our most sanguine expectations.

The line to Columbus,—which also afforded an equally good connection with Cincinnati as that via Marietta, though leaving a large district of country tributary to another railway—after long delays, growing mainly out of a failure to procure adequate legislation in Virginia, has recently been brought into efficient use, and promises satisfactory results. The Pennsylvania Railroad Company will own as a preferred shareholder more than half of the capital stock of this line.

The eastern end of this line, known as the Pittsburgh and Steubenville Railroad, extending from Pittsburgh to the Virginia State line, was commenced under the patronage of the City of Pittsburgh and Allegheny County, but owing to the absence of any legal right to extend its road to the Steubenville and Indiana Railroad across Virginia, it failed to obtain a credit that would justify any responsible individuals in undertaking its construction. A further increase of its capital stock was therefore impracticable.

A contract was entered into by the Pittsburgh and Steubenville Railroad Company, with parties of insufficient capital, for the

completion of this line, which, as might have been expected, only resulted in still further embarrassing the condition of the Company by a disproportionate increase of its indebtedness, compared with the work done. After further efforts to secure other parties to build the road, a contract was entered into with the Western Transportation Company for that object—a corporation in which this Company became the chief shareholder—and through its instrumentality a concession was obtained from Western Virginia, permitting the construction of a railroad across that State. From this period the work was pushed with as much vigor as the condition of the labor market would permit, notwithstanding the extraordinary advance that had taken place in every element that entered into the cost of constructing railways. Under this contract, the work has been opened for use for more than a year. In view of the expenditures that had been made upon the line, and those directed to be made under the commutation act, it was, at the time, deemed best to advance the means required to complete this line; but, in consequence of the unexpectedly large amount required, it would have probably been better to have permitted the road to have been sold, and thus divested it of the complications surrounding it and which now render such a sale essential to ascertain the relation of its creditors. There is much work still to be done, to complete this road in a manner that will enable it to meet the demands of its traffic.

The Marietta line, which had enlisted the warmest support from the shareholders and the merchants of this city, of either of the lines mentioned, became so hopelessly involved that the funds advanced by this Company, for the construction of that part of the road between Marietta and Wheeling, were taken with-

out our assent, to meet its debts incurred upon the line west of that point. In consequence of this misapplication of the means furnished by this Company, and the immense sums that would have been absorbed in carrying out the original plan, it was not deemed prudent to make any attempt to save the amount invested in the enterprise, under your instructions. This amount was accordingly charged to profit and loss, and its stock no longer appears among your assets.

The interest of the Company in the Chicago line has nearly all been disposed of, at a profit to this Company fully equal to its loss upon the Marietta line. But for the timely aid afforded by this Company, it would have proved, as an investment, nearly as unproductive.

The completion of the Columbus route having, in consequence of want of legal authority in Virginia, been thrown into a period of inflated prices, its cost has so far exceeded our anticipations that it will require a long time for it to repay this Company in direct returns for the outlays incurred. For these expenditures it has received various securities, some of which have been disposed of, and on the remainder there will probably be no loss except a few years of interest, for which the indirect advantages gained by the Company must be its compensation.

The shareholders will perceive, from this resumé of the operations of the Company, the extent of the means required, and the labor and responsibility incurred to save the original investments made under your instructions, to build up lines to connect yours with the trade centres of the West—expenditures that were necessary to the success of your own work, but which a few years earlier commencement of it would have rendered unne-

cessary, as the tendency of the Western lines would probably then have been towards Pittsburgh.

These expenditures have frequently been referred to by shareholders as unwise, without reflecting that they were the result of their own action, and that the Officers of the Company are really the parties to complain of the immense unrequited labor and responsibility they have had to assume to save the object the Company had in view in making these investments, and in providing the means necessary to effect them. That they have required outlays, to secure the original objects, far exceeding any just expectation at the time they were entered into, is quite true; but this has arisen from the inadequate stock basis furnished by their shareholders for the completion of these works and the subsequent increased cost of building railways. The result, however, we think will justify the policy of this Company.

These extraordinary outlays were commenced while the traffic of this line was comparatively small, and burthened by a heavy impost duty levied by the State, and assessed upon no other competing line, greatly diminishing its ability to meet these necessary expenditures to ensure the prosperity of the State—and from which burthen it was only released upon condition that the Company would apply the unpaid instalment towards the construction of the Mifflin and Centre County, Bedford, Bald Eagle Valley, Tyrone and Clearfield, Ebensburg and Cresson, Western Pennsylvania, and the Pittsburgh and Steubenville Railroads—all improvements within the Commonwealth. The effect of this mandate was the same as that which followed the appropriations made by the stockholders to Western lines, already stated, entailing upon this Company either

the loss of the whole investment directed to be made, or advances of the additional amounts required to complete these works. The Board saw no other alternative but to meet this difficulty by the adoption of a liberal and active policy, and thus bring all of these lines into productive use as speedily as practicable. The outlays necessary to secure this object, from the causes already referred to, have been very large, but the results have proved much more satisfactory than if the original expenditures had been suffered to remain unproductive, as would have been the case if they had simply fulfilled the requirements of the law. The further extension of some of these lines will still be necessary, to enable them to become productive and meet the wants of the districts they were built to accommodate.

We have thus presented to you the extent, and the causes for the unusually heavy expenditures made by this Company on account of its tributaries. Their magnitude has made it necessary, not only to protect the investments made in them, but also to secure the control of other lines important to their success. This policy has eventuated in a system which includes the Philadelphia and Erie and Northern Central Railroads, by which the Company's cars find their way over continuous and unbroken lines, under one control, from Columbus, Erie and Pittsburgh to Philadelphia and Baltimore.

To meet the expenditures, but partially enumerated, without financial sacrifices, and still preserve the relation between the share capital and debts of the Company, as already indicated as the settled policy of this Company, has been attended with some difficulties. But the rule is one that should not be exceeded by any prudent railway corporation.

To preserve this relation, and place your financial system upon a basis that may be easily understood, while it is at the same time sufficiently comprehensive for the future wants of the traffic seeking your line—which will doubtless increase with the growth and prosperity of the country—the Directors have procured an amendment to the Charter which permits the requisite increase of the share capital of the Company and prohibits the issue of mortgage bonds exceeding its capital stock.

The increase of the capital of the Company, under this Act, may be effected in one of three ways. First, by a sale of the shares. Second, by a subscription to the stock of the Company, in which each shareholder will have the right to participate in proportion to his interest; and Third, by stock dividends.

The first plan is deemed inexpedient. The second, which is the best, has been objected to by the City of Philadelphia, in consequence of her inability to participate in the advantage of such subscription, owing to a constitutional prohibition of the further exercise of such powers by municipal corporations. The third, therefore, is the only one to meet existing circumstances, and with a view to carry this plan into effect, the Directors have passed the resolution annexed to this report, which is submitted for your approval. It is believed that in addition to cash dividends, a dividend of 5 per cent. in stock may be declared annually under any ordinary condition of the country, and still leave an ample surplus to the credit of profit and loss to preserve the property of the Company at its present high standard of efficiency and value.

The responsibilities assumed by this Company, through the endorsement of the bonds of other railroad corporations, are confined to the first mortgages of the Philadelphia and Erie

Railroad Company, amounting to five millions of dollars, the Western Pennsylvania Railroad Company for eight hundred thousand dollars, and the Connecting Railway Company for one million of dollars. In the two last named companies, the Pennsylvania Railroad Company is also the owner of nearly all their share capital, and upon the first it has a lease for 999 years.

The Connecting Railway has been leased to the Philadelphia and Trenton and Camden and Amboy Railroad Companies for legal interest upon its whole cost, which will be twice the amount of coupons falling due upon the issue of its bonds so guaranteed.

The net revenues of the Western Pennsylvania Railroad Company, since its extension to Pittsburgh, have been sufficient to meet its interest, and these must continue to increase, while the thirty per cent. due to the Philadelphia and Erie Railroad Company under its lease, and first applicable to the payment of the coupons upon their bonds, is already largely in excess of the amount required for this object. It will therefore be seen, that the revenues of these Companies are amply sufficient to meet the interest upon the bonds so endorsed, and that they cannot become a charge upon the net revenues of this Company.

The bonds of these railroad companies, with the exception of \$1,200,000 of those of the Philadelphia and Erie Railroad Company, were endorsed after their purchase by this Company, and were so endorsed to secure a better market price for this Company when sold by it.

The propriety of selling the bonds of lines aided by this Company, either with or without its endorsement, is questionable, inasmuch as better results can be obtained by the use of

the direct credit of the Company. Hitherto, however, there has been no alternative, as the powers of the Company have been too circumscribed to act upon such a policy.

The earnings and expenses of the Pennsylvania Railroad, and the roads worked by it, except the Philadelphia and Erie Railroad, were for 1866 as follows :

EARNINGS.

From Passengers, 1st class,	-	-	\$3,245,800	06	
" Emigrants,	-	-	139,721	25	
					3,385,521 31
" United States Troops,	-	-	-	-	560,945 44
" " Mails,	-	-	-	-	82,730 00
" Express matter,	-	-	-	-	374,369 22
" General freights,	-	-	-	-	11,709,293 59
" Miscellaneous sources,	-	-	-	-	471,023 28
					<u>\$16,583,882 84</u>

EXPENSES.

CONDUCTING TRANSPORTATION.

For ordinary expenditures,	-	-	\$3,492,008	80	
" erection of passenger and freight stations					
and extension of existing buildings,			154,743	42	
					<u>\$3,646,752 22</u>

MOTIVE POWER.

For ordinary repairs and renewals,	-	\$2,919,122	47		
" erection of machine shops and engine					
houses,	-	-	121,724	59	
" additional tools and shop machinery,					
((\$27,515 56 of which was for the Philadelphia and Erie Railroad shops,)		85,225	77		
" additional locomotives purchased during					
1866,	-	-	671,758	80	
					<u>3,797,831 63</u>
Amount carried forward,	-	-	-	\$7,444,583	85

Amount brought forward, - - - - \$7,444,583 85

MAINTENANCE OF CARS.

For ordinary repairs and renewals, &c. &c., \$1,070,912 77
 " additional freight cars, - - - 693,766 37
 " " passenger cars, - - - 196,363 06
1,961,042 20

MAINTENANCE OF ROAD.

For ordinary repairs of railway and renewals of structures, - - - - \$2,845,465 58
 " additional second track and sidings, 250,965 09
3,096,430 67
 " General Expenses, - - - - - 288,852 55
 Total expenditures connected with the business of the Pennsylvania Railroad Company, including addition to the facilities for transportation on its own road and that of the railroads it operates, &c., - - - - \$12,790,909 27

RECAPITULATION.

Gross Earnings, - - - - - \$16,583,882 84
 Total ordinary expenses, - - - \$10,616,362 17
 " extraordinary " consisting of additional second track and sidings, additional locomotives, cars, &c., - - 2,174,547 10
12,790,909 27
 Leaving a balance of - - - - \$3,792,973 57

The gross revenue of the line for 1866 is equal to \$46,323 41 per mile of main line of road (358 miles,) and is less than the aggregate receipts in 1865, \$875,286 65.

The decrease upon passengers and emigrants is	-	-	\$788,671 56
" " " expresses is	-	-	109,354 63
" " " Government troops is	-	-	717,899 16
			<hr/>
			1,615,925 35

and

The increase on United States Mails,	-	\$ 2,599 45	
“ “ “ regular freights,	- -	515,728 22	
“ “ “ miscellaneous,	- -	222,311 03	
		<hr/>	740,638 70
			<hr/>
Total decrease,	- - - - -		\$875,286 65
			<hr/>

The whole number of passengers carried in 1865 was 2,861,836, and during the past year, 2,673,568. The average distance travelled by each passenger was 52 miles, and the previous year $71\frac{1}{2}$ miles; this difference being due to the larger amount of through travel and troops in 1865.

The number of tons of freight moved (including 266,359 tons of fuel and other materials transported for the Company,) was 3,452,718, embracing 1,413,181 tons of coal. The increase in the coal traffic is 338,424 tons, and the whole tonnage of the road exceeds that of last year, 653,908 tons, nearly 25 per cent.

The ordinary expenditures for working and maintaining the Company's roads were \$10,616,362 17, which is equal to 64 per cent. of their revenues, or, including the expenditures for construction and equipment upon its own line, and the outfit of the Philadelphia and Erie and other railroads, $77\frac{1}{10}\frac{2}{10}$ per cent.

The earnings of the Company's canals were :

From Susquehanna Division,	-	-	-	-	-	\$252,681 42
“ Juniata “	-	-	-	-	-	35,175 32
“ miscellaneous sources,	-	-	-	-	-	10,010 42
						<hr/>
Total earnings,	-	-	-	-	-	\$297,867 16
						<hr/> <hr/>

Against \$181,015 38 for 1865.

The cost of maintaining, enlarging and operating the canals, was :

For Susquehanna Division,	-	-	-	-	-	\$130,212 93
“ Juniata “	-	-	-	-	-	101,501 50
“ Western “	-	-	-	-	-	1,723 55
						<hr/>
Total expenses,	-	-	-	-	-	\$233,437 98
						<hr/> <hr/>

Showing a net profit during 1866 of \$64,429 18.

Estimating the value of these canals when purchased at one million of dollars, they now stand this Company, including interest and the cost of their renewals and enlargement as far as it has progressed, at about \$2,750,000, for which sum they will be sold to the Pennsylvania Canal Company for stock in said Company, in pursuance of the policy sanctioned at your last annual meeting.

It is believed, that the growing bituminous coal and lumber transportation that may be thrown upon the Pennsylvania Canal, at or near Huntingdon will, upon its enlargement, make it a profitable investment. Above Huntingdon, it must in consequence of a great amount of lockage, eventually be abandoned, and a railway occupy its route, along which there exists an abundant water power to give life and activity to a large manufacturing population.

The earnings of the Philadelphia and Erie Railroad, in 1866, were :

From Passengers,	-	-	-	-	-	\$686,621 78
“ Troops,	-	-	-	-	-	48,103 13
“ Freight,	-	-	-	-	-	1,744,299 13
“ Express matter,	-	-	-	-	-	26,941 43
“ Mails,	-	-	-	-	-	18,501 96
“ Miscellaneous sources,	-	-	-	-	-	16,584 36
						<hr/> \$2,541,051 79

Deducting taxes, overcharges, &c., \$98,589 13 from \$2,541,051 79, leaves \$2,442,462 66 as the sum upon which 30 per cent. is due the Philadelphia and Erie Railroad Company, amounting to - \$732,738 80

The operating expenses during the same period were :

For conducting transportation,	-	-	620,845 80
“ maintenance of way,	-	-	624,245 02
“ motive power,	-	-	682,947 62
“ maintenance of cars,	-	-	158,936 09
			<hr/> \$2,819,713 33

Showing a loss to this Company in operating the line of \$278,661 54

This loss is largely to be attributed to the bad condition of the older bridges erected by the Philadelphia and Erie Railroad Company over the Susquehanna, and the unfinished character of the work generally upon the whole line.

The passenger travel has fallen off during the year in sympathy with that of nearly all of the other railways of the country. To this general depression this line has also had added to it, the loss of travel from the decay of the speculative excitement of the oil region, while the same train accommodation has to be maintained.

The tonnage of the Philadelphia and Erie is mostly made up of cheap products that can only be moved at low rates of transportation, which under the existing condition of the business of the country, are inadequate to meet the cost of their movement at the per centage stipulated in the lease of the road. This traffic has been quite irregular during the past year, though in the aggregate it has largely increased over that of 1865, and must continue to grow with the increase of the population of the region traversed, while the relative transportation expenses can only be reduced by this enlargement of its business and a fall in the prices of labor and materials.

Arrangements are being made to increase the business of the road by the establishment of a line of steamers between Erie and the other lake ports, under the patronage of this Company, with anticipations of successful results.

The future of this great work is very encouraging, but its traffic, as in all other similar projects, will require the application of capital and time to develope. The transportation facilities are ample for the accommodation of all the business that can be offered to it during the present year.

The whole revenue of the Pennsylvania Railroad Company from its several lines is as follows, viz :

From the Pennsylvania Railroad and branches,	-	\$16,583,882 84
“ “ Canals,	- - - -	297,867 16
“ Philadelphia and Erie Railroad,	- -	2,541,051 79
Amount carried forward,	- -	<u>\$19,422,801 79</u>

And the expenses of operating these lines are :

Amount brought forward,	- -	\$19,422,801 79
Pennsylvania Railroad, ordinary,	-	\$10,616,362 17
“ “ extraordinary,	-	2,174,547 10
“ Canal, - - - -	-	233,437 98
Philadelphia and Erie Railroad,	- -	2,086,974 53
Thirty per cent. reserved to pay taxes and interest on debt of Philadelphia and Erie Railroad Company, - - - -	-	732,738 80
		<u>15,844,060 58</u>
Balance, - - - - -	-	\$3,578,741 21
From which deduct payments made during the year to the shareholders of the Pennsylvania Railroad Company for dividends, \$1,737,969; the balance to debit of interest and coupon account, \$539,859 57; the amount due to the Harrisburg and Lancaster Railroad Company under lease, \$135,274 18; the taxes on dividends, and coupons, \$438,855 57; and the annual sum of \$460,000, due to the State of Pennsylvania for the purchase of the main line of public works, amounting in all to -		
		<u>3,301,958 32</u>
Leaving a surplus of - - - - -	-	<u>\$276,782 89</u>

This is the result of the year's operations of your railways and canals, after charging all expenditures for new work and additional rolling stock, &c., together with an instalment of \$100,000 upon the principal of the debt due the State, &c., to expense account.

The demands upon your Treasury, during this year, in addition to the ordinary expenditures for operating the road, will be about the same as estimated for 1866. To the completion of the Connecting Railway, and the increase of facilities for business upon the Western Pennsylvania and Pittsburgh and

Columbus lines, there will be added the extension of the Tyrone and Clearfield Branch to the town of Clearfield, near the centre of the great lumber and coal region of the Alleghenies. A number of improvements upon the Main Line, heretofore deferred in consequence of the high rates of wages and materials will not admit of further delay; while the road between Lancaster and Philadelphia, located before the successful application of locomotive steam power upon railways, requires extensive alterations in its alignment, to place it in harmony with the other portions of your railway.

That portion of this line crossing the high range of hills bordering the Great Valley commencing near Haverford College, and extending to Valley Creek—a space of over twenty miles—embraces the worst located parts of the old line, and requires alterations which will amount to nearly a new road for this distance. An appropriation of a quarter of a million of dollars annually to this object for a few years, will make these changes; the interest upon which sum will be more than repaid in the diminished cost of moving and maintaining the rolling stock of the Company.

Your Directors have alluded in previous reports to the rapid destruction of iron rails, and the increased cost of replacing them, under the frequent interruptions to the workmen from the numerous trains now passing over the line. Every effort to materially improve the quality of the iron to meet the wants of the augmenting traffic of the trunk lines having heretofore failed, attention was directed to the introduction of steel rails, and, with a view to test their efficiency, the President, while in England, in 1862, ordered a few hundred tons for trial. These proved so satisfactory that larger importations have been made

of Bessemer steel rails, which have entirely confirmed our expectations of their success. The cost of steel rails is at present about twice the price of the best iron rails, while their durability is fully eight times greater. It is confidently believed, however, that with enlarged works, increased knowledge of the ores required to produce the best quality of this metal, and greater experience in its production, they will be successfully manufactured at home and the price very largely reduced. At present the demand is equal to the supply, and prices are maintained. To avoid the heavy annual outlays that a change from a cheap to a dearer material would necessarily entail upon your revenues, it is proposed to continue for the present to re-roll the worn-out rails, and replace the annual wear and tear with steel rails. The general introduction of steel rails is now wholly a commercial question, in which the cost of the increased capital required for their purchase becomes the chief impediment to their general adoption. While the business of a line is small, it will still be economy to use iron rails, at an ordinary rate of interest upon capital, until the cost of producing steel is reduced to its minimum. When this result is accomplished, the general public will be materially benefitted by the reduced cost of transportation which the introduction of steel rails will enable railway Companies to afford.

The Company has also laid 500 tons of rails the wearing surface of which had been "steeled" by Dodd's process. The increased durability imparted to the rail by this process will probably extend its life three-fold, while its additional cost thus prepared is about 25 per cent. From the result of our experience it would seem that rails so treated will prove a valuable article as an intermediate between steel and ordinary iron rails.

The Directors have given to the subject of establishing a line of steamships between this port and Europe, committed to them at your last annual meeting, all the consideration which its importance required; but they have not yet arrived at a satisfactory conclusion as to the best means of effecting this desirable object. Proposals have been asked until the first of May next, by public advertisement, of those engaged in this business to establish such a line, under concessions, and a subsidy to be paid by this Company during the continuance of the contract.

In their last Annual Report, your Directors referred to the introduction of express freight lines upon your railway as a new feature in the policy of the Company, and one which had heretofore been opposed by its officers as unnecessary to the efficient conduct of the transportation departments of the Trunk lines. While these views remain substantially unchanged, they are quite clear that the introduction of these lines upon the Pennsylvania Railroad—after every effort had been made to secure their withdrawal from rival lines—became not only a necessity, but a duty which the Board owed to the shareholders. A failure to make use of this weapon, so dexterously and persistently used by our competitors in various forms to promote their interests, would have shown as little foresight as would have been attributed to the General Government, if it had failed to meet the preparations, known to be in progress upon the Merrimac, by the building of a more efficient iron-clad.

From the statistics of the Company, it appears that the ordinary freight business of the road has continued to grow in its usual ratio since the introduction of these freight lines, showing that their sustenance is abstracted from the business

of similar organizations that exist upon rival routes, whose competition they were introduced to meet;—gaining for this Company a business not heretofore enjoyed by it, and which could not be secured by any other means.

It also appears from the same sources, that the freights brought to the road by these lines pay to the Company better net rates than is derived from any other portion of the Company's through business. The success of these lines, in collecting and distributing freights throughout the West, has been largely due to the inability of many of the Western railways to supply cars sufficient to accommodate the through traffic originating along their own and connecting roads, and, in consequence, the traffic has heretofore sought rival avenues, whose equipment was sufficient to furnish the means for its transportation.

Under existing contracts between this Company and the freight lines, it seems that the only point it is necessary to solve is, whether the rates charged for this freight by the railroad companies are as large as the express freight companies can pay, and preserve the full efficiency of their organizations. As at present advised, the Directors are disposed to believe that they are, and that the interests of the Company would suffer great damage by their withdrawal from its service, while such lines, or other organizations to effect the same objects, are maintained upon competing routes.

The chief element of profit of these freight lines has been in the *margins* paid to them, above the ordinary railroad rates, by merchants disposed to patronize a medium of transportation where the responsibility is direct, immediately accessible and undivided from the point of shipment to the point of delivery

of their merchandise ; rather than a line made up of various railway corporations, of whose responsibility they are not familiar. Advantages such as are afforded by these organizations, cannot for obvious reasons, be fully accorded to shippers by any railway Company.

That the enterprise has proved successful to its proprietors, in view of the large amount of capital ventured in an untried field, should be a matter of gratification to the shareholders of the Pennsylvania Railroad Company, whose interest it was intended to and has so largely promoted. This success is mainly due to the thorough knowledge of the freight business possessed by those to whom the control of these organizations was first entrusted, and their comprehension of the means required to achieve the objects of their creation, united to a disposition and ability to embark whatever capital was required to secure favorable results to this Company and themselves. In other hands it might have proved a failure.

The Board has deemed it important to say this much in explanation of their action upon a subject which has met with considerable animadversion from the captious, and to assure the shareholders that under its contract it has entire control of these organizations, and as long as their operations conduce to your interest, they will be maintained ; if otherwise, they will be abolished.

It will be gratifying to the shareholders to learn from a careful examination made of the statistics of the freighting business of the Company, that of the 3,186,359 tons of freight carried over the road during the past year only 158,264 tons of through freight has passed from points east of Philadelphia to and from Pittsburgh and the West, and 61,862 tons to and

from Baltimore, while 330,959 tons of through freight have been carried to and from Philadelphia and the West. The remainder, 2,635,274 tons, was local traffic of the State, between local stations and from them to and from Philadelphia and Pittsburgh. Philadelphia, therefore, in addition to the large local traffic mentioned, enjoys above one hundred per cent. more of the through traffic transported over the line than New York, Providence, Boston and all other points on the Atlantic sea-coast combined east of Philadelphia.

Since your last annual meeting, the Superintendent of Motive Power and Machinery, (J. P. Laird, Esq.,) resigned his position, and the Board has appointed as his successor, R. E. Ricker, Esq., who for many years had been connected with the active management of Western railways, and he will no doubt make a successful manager of the important department committed to his charge.

The acknowledgments of the Board are due to the officers of the Company generally, for the prompt and efficient manner in which the business of the line has been conducted during the past year.

By order of the Board,

J. EDGAR THOMSON,

President.

Resolved, That for the purpose of consolidating the Bonded and other indebtedness of the Pennsylvania Railroad Company and to raise funds to meet the annual demands upon the Treasury of the Company for new tracks, additional equipment, enlargement of depots, extensions of sidings, and to meet the legitimate demands of the traffic of the country drained by the road of said Company and its branches, for increased railroad accommodations, and also to preserve the proper relation between the share capital and debts of the Company, the following financial programme be and the same is hereby adopted :

First. That the Bonds of the Pennsylvania Railroad Company secured by the First and Second Mortgages, and those due the Commonwealth issued for the purchase of the Main Line of Public Works, and other indebtedness, be paid out of the proceeds of, or be retired by, Bonds to be secured by a Consolidated Mortgage upon the whole or such portion of the line from Philadelphia to Pittsburgh, with its equipment, and for such amount as the President and Board of Directors may determine, and the issue of the Bonds secured thereby shall at no time exceed the capital stock as the same may from time to time be increased.

Second. Dividends to be made semi-annually of *not exceeding* Four per cent. from the net profits of the Company, payable in cash, free of United States and State taxes, and that a stock dividend of Five per cent., based upon profits already earned, be declared at the regular dividend term in May next, and thereafter, in addition to the semi-annual cash dividend, a stock dividend of Five per cent. per annum be declared annually, if the net earnings of the Company will warrant the same.

Cr.

Dr.

	DOLLARS.	CENTS.
To Capital Stock.....	20,000,000	00
" First Mortgage 6 per cent. Bonds.....	4,980,000	00
" Second ".....	4,904,840	00
" Lien of State upon the public works sold to this Company, bearing 5 per cent.....	6,600,000	00
" Short Bonds, or Debentures, 6 per cent.....	1,934,018	73
" Mortgages and Ground Rents, 6 per cent.....	170,184	32
" Bills and Accounts payable, including Dividends due to Stockholders, unpaid.....	3,062,144	45
" Extra Dividend Fund.....	1,100,000	00
" Contingent Fund.....	1,600,000	00
" Balance.....	370,315	02
Total.....	44,261,599	64
By Balance standing on Books of Company for the Construction of the Railroad between Harrisburg and Pittsburgh, including Branches to Indiana and Hollidaysburg, (in all 216 miles), also for Cost of Stations, Warehouses, Shops and Shop Machinery, on the whole road from Philadelphia to Pittsburgh.....	\$3,000,000 00	
" Balance standing on the Books of the Company for the purchase of the Philadelphia and Columbia Railroad.....	6,500,000 00	
" and the Pennsylvania Canals.....		
" Balance standing to the debit of Equipments of River, consisting of 82 Locomotives, 240 Passenger Cars, 103 Baggage Mail and Express Cars, 6,953 Freight Cars, and 253 Road Cars.....	3,371,214 98	
" Cost of Real Estate of Company and Telegraph Lines.....	3,421,480 91	
" Extensions of Pennsylvania Railroad to the South Bank of the Monongahela and to the Delaware River, including Wharves and Grain Elevators.....	2,121,157 77	
" 14,533 Shares Harrisburg and Lancaster Railroad Stock.....		
" Western Pennsylvania Railroad Stock and Bonds.....		
" Cost of First and Second Mortgage Bonds, Pittsburgh and Stauntonville Railroad Company.....		
" Stauntonville and Indiana Railroad First Mortgage Bonds owned by Company.....		
" Philadelphia and Erie Convertible 7 per cent. Bonds, (the remainder of the \$3,000,000 loan being in Sinking Fund).....		
" Amount of other Bonds and Stocks of Municipal and Railroad Corporations.....		
" Bonds and Stocks in Sinking Fund.....		
" Amount of Fuel and Materials on hand for repairs to Locomotives, Cars, and Maintenance of Way on Pennsylvania Railroad.....		
" Amount advanced to pay for Fuel and Materials on hand for repairs to Locomotives, Cars, and Maintenance of Way for Philadelphia and Erie Railroad.....		
" Amount advanced to operate Philadelphia and Erie Railroad.....		
" " of Bills and Accounts Payable and Amount due from other Railroads.....		
" Balance in hands of Agents.....		
" " Treasurer, including \$420,000 U. S. 6-20's.....		
Total.....	44,261,599	64

NOTE.—The Cost of the Harrisburg and Lancaster Railroad, when acquired by this Company, will amount to \$1,832,660, and is not included in this account.

E. & O. E.—*Philadelphia, December 81, 1866.*

THOMAS T. FIRTH, Treasurer.

REPORT OF THE GENERAL SUPERINTENDENT.

OFFICE OF THE GENERAL SUPERINTENDENT.

Altoona, Blair Co., Pa., December 31, 1866.

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 1866:

The earnings have been—

From transportation of freight and tolls on

individual cars, - - -	\$11,709,293 59
" First-class passengers, - - -	3,245,800 06
" Emigrant passengers, - - -	139,721 25
" Adams Express Company, (regular) -	180,450 00
" " " " (extra) -	193,919 22
" Transportation of U. S. mails, - -	82,730 00
" Government troops, - - -	560,945 44
" Rents of property, - - -	59,720 12
" All other sources, - - -	411,303 16

Total, - - - -	<u><u>\$16,583,882 84</u></u>
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Gross earnings (brought forward), - - - -	\$16,583,882 84
The expenses have been—	

MOTIVE POWER.

Ordinary, - - -	\$2,919,122 47	
New Locomotives, -	671,758 80	
New Tools and Machinery, -	85,225 77	
Extension of Machine Shops and Engine Houses, -	121,724 59	
	<hr/>	\$3,797,831 63

CONDUCTING TRANSPORTATION.

Ordinary, - - -	3,492,008 80	
New Buildings and Extensions, -	154,743 42	
	<hr/>	3,646,752 22

MAINTENANCE OF WAY.

Ordinary, - - -	2,845,465 58	
Extension of Second Track and Sidings, - - -	250,965 09	
	<hr/>	3,096,430 67

MAINTENANCE OF CARS.

Ordinary, - - -	1,070,912 77	
New Freight Cars, -	693,766 37	
" Passenger Cars, -	196,363 06	
	<hr/>	1,961,042 20

GENERAL EXPENSES.

Ordinary, - - - - -	288,852 55	
	<hr/>	\$12,790,909 27
Net Earnings, - - - - -		<hr/> <hr/> \$3,792,973 57

RECAPITULATION.

Total Earnings, - - - - -	\$16,583,882 84
“ Ordinary Expenses, - - -	\$10,616,362 17
“ Extraordinary Expenses, - -	2,174,547 10
Total Expenses, - - - - -	12,790,909 27
Net, - - - - -	<u>\$3,792,973 57</u>

COMPARISON WITH 1865.

Gross Earnings—1866, - - -	\$16,583,882 84
“ “ 1865, - - -	17,459,169 49
Decrease in Gross Earnings, - - -	\$875,286 65
Net Earnings—1866, - - -	3,792,973 57
“ “ 1865, - - -	4,189,110 95
Decrease in Net Earnings, - - -	396,137 38
Ordinary Expenses—1866, - -	10,616,362 17
“ “ 1865, - -	10,881,930 04
Decrease in Ordinary Expenses, - -	265,567 87
Extraordinary Expenses—1866, -	2,174,547 10
“ “ 1865, -	2,388,128 50
Decrease in Extraordinary Expenses, -	213,581 40
Total decrease in Expenses, - - -	479,149 27

DIVIDED AS FOLLOWS :

	Motive Power.	Conducting Transportation.	Maintenance of Way.	Maintenance of Cars.	General Expenses.
1866	8,797,831 68	8,646,752 22	8,096,430 67	1,961,042 20	288,852 55
1865	4,814,918 40	3,736,286 09	2,895,096 82	1,657,625 89	166,187 84
Increase	.....	.....	201,334 85	303,416 81	122,715 21
Decrease	1,017,081 77	89,533 87	.....	.....	.....

The extraordinary expenses are as follows :

MOTIVE POWER.

For new Locomotives, - - -	\$671,758 80.
“ “ Tools and Machinery, -	85,225 77
“ extension of Machine Shops and Engine Houses, - -	121,724 59
	<u>878,709 16</u>

CONDUCTING TRANSPORTATION.

For new buildings and extensions, - - -	154,742 42
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MAINTENANCE OF WAY.

For extension of second track and sidings, -	250,965 09
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MAINTENANCE OF CARS.

For new Cars, - - - - -	890,129 43
Total extraordinary expenses, - -	<u><u>\$2,174,547 10</u></u>

PASSENGER BUSINESS.

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

	NUMBER.	MILES TRAVELED.
First-Class Passengers.....	2,008,595	96,948,773
Emigrant “	30,395	10,198,770
Commutation “	515,846	4,562,153
Government Troops.....	118,732	27,375,854
	<u>2,673,568</u>	<u>139,085,550</u>

COMPARED WITH 1865.

	1866.	1865.	INCREASE.	PERCENTAGE OF INCREASE.	DECREASE.	PERCENTAGE OF DECREASE.
First-Class and Commutation Passengers.....	2,524,441	2,455,852	68,789	2.82%	.....	.....
Emigrant "	30,895	27,791	2,604	9.37%	.....	.....
Government Troops.....	118,782	878,898	.....	.....	259,661	68.44%
Totals.....	2,673,668	2,861,886	71,898	.....	259,661	.....

Total decrease, - - - - - 188,268

This aggregate decrease, it will be seen from the above table, is due entirely to the decrease in the number of troops carried; the demand for transportation on this account having largely fallen off since the close of the war. Both the first-class and emigrant travel show a considerable increase over 1865.

FREIGHT BUSINESS.

During the year 1866 there were transported over the road—						
Fuel and other material for Company use,	-	-	-	-	266,359	tons.
Regular freight,	-	-	-	-	3,186,359	"
Total for 1866,	-	-	-	-	3,452,718	"
" " 1865,	-	-	-	-	2,798,810	"
Increase,	-	-	-	-	653,908	"

Included in the regular freight, there were moved—

Oil,	-	-	-	-	157,522	tons.
Coal,	-	-	-	-	1,413,181	"
Total tons moved one mile,	513,102,181.					

The business of the Road during the past year has exceeded in amount that of any previous season. This fact is shown both by the number of tons of freight carried and by the movement of cars at different points of the road. The gross receipts, however, show a decrease of five per cent. as compared with 1865, but this decrease is accounted for by the reduction in rates from the prices obtained during several previous seasons. The number of cars moved in both directions over the road is exhibited in the following table:

	1866.	1865.	INCREASE.
West Philad'a.—No. Cars sent Westward....	116,198	91,126	27 $\frac{31}{100}$ pr. ct.
" rec'd from West....	117,027	90,929	28 $\frac{70}{100}$ "
Harrisburg.—No. Cars sent Eastward.....	117,149	86,787	34 $\frac{38}{100}$ pr. ct.
" " Westward.....	162,921	126,222	29 $\frac{97}{100}$ "
Altoona.—No. Cars sent Eastward.....	118,911	103,282	15 $\frac{18}{100}$ pr. ct.
" " Westward..	128,765	108,822	18 $\frac{33}{100}$ "
Pittsburgh.—No. Cars sent Eastward.....	84,410	70,093	20 $\frac{41}{100}$ pr. ct.
" rec'd from East.....	79,456	69,954	13 $\frac{31}{100}$ "

The increase at each point has been—

At Philadelphia,	-	-	-	-	-	28 $\frac{01}{100}$ per cent.
" Harrisburg,	-	-	-	-	-	32 $\frac{02}{100}$ "
" Altoona,	-	-	-	-	-	16 $\frac{75}{100}$ "
" Pittsburgh,	-	-	-	-	-	17 "

or an average increase in the number of cars moved, for the entire road, of 23 $\frac{47}{100}$ per cent.

The only points at which a decrease in tonnage is shown by the record of the movement of cars, are,

Marysville, Westward—Decrease,	-	-	21 $\frac{9.5}{100}$	per cent.
Huntingdon, Eastward, “	-	-	10 $\frac{4.8}{100}$	“
East Liberty, “ “	-	-	10 $\frac{2.0}{100}$	“

The decrease at Marysville is due to the cessation of the business between Baltimore and the West, which was created by the demands of the general government during the war. The decrease in the shipments of live stock from East Liberty is attributable to the same cause. The decrease at Huntingdon arises from the suspension for a time of coal operations in the Broad Top region, owing to a strike among the miners during the summer.

The business originating on the Branch Roads, shows an increase of nearly 50 per cent. over that of 1865. This increase may be attributed to the development of the coal and lumber interests of that region, and gives promise of results still more gratifying in the future.

THE LIVE STOCK TRADE.

This branch of the Company's business shows a slight aggregate decrease from the trade of 1865, which is mainly attributable to the decrease in shipments on government account, as previously stated, to Baltimore and Washington. The increase in other directions, however, has been sufficient to give full employment to our stock cars.

COAL TRADE.

This traffic shows an increase of 338,424 tons, or 31 $\frac{4.8}{100}$ per cent. over 1865. One hundred P. & R. R. joint cars have been added to the equipment for service in the Allegheny coal trade.

OIL TRADE.

The oil trade has gained largely during the year, and the quantity carried shows an increase of 28 per cent. over that of 1865. The total shipments have been 773,625 barrels from Pittsburgh and Allegheny Junction, of which 595,480 barrels were refined, and 178,145, crude oil.

ROLLING STOCK.

The report of the Superintendent of Motive Power and Machinery, shows that there are 362 effective locomotives on the road at this date. Compared with the number of effective engines in service at date of last report, these figures show an increase of 27, or 8 per cent. over 1865. The present equipment includes 56 engines added during the year, 35 of which were purchased from builders, and 21 rebuilt in the shops of the Company. There are at present undelivered on contracts made in 1866:

Ten-wheeled Freight Locomotives,	-	-	-	-	12
Eight-wheeled " " " " " "	-	-	-	-	12

The passenger equipment shows an increase of 14 cars over 1865, and consists at this date of 276 passenger, emigrant, baggage, mail and express cars.

The freight equipment is as follows:

Box Cars,	-	-	-	-	-	1,811	
Stock "	-	-	-	-	-	995	
Gondola Cars,	-	-	-	-	-	2,072	
Coal " " " " " "	-	-	-	-	-	728	
							5,606
Cars owned by other Companies	-	-				941	
Joint P. & R. "A" and "B" Coal Cars,	-					685	
Union Line Cars,	-	-	-	-	-	800	
							2,426
Total,	-	-	-	-	-		<u>8,032</u>

This number includes cars added during the year by contracts with builders, as follows:

Box Cars, - - - - -	16
Stock " - - - - -	172
Gondola " - - - - -	546
	<u>734</u>

and cars built in the Company's shops, as follows:

Box Cars, - - - - -	40
Stock " - - - - -	12
Gondola " - - - - -	30
Coal " - - - - -	19
	<u>91</u>

Total number of Cars added, - -	<u><u>825</u></u>
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The increase of freight equipment over that of 1865 has been in the aggregate 442 cars, of which 270 are the property of this Company, and 172 of Coal, or other companies. Of this additional equipment, 250 cars came upon the road so lately as to be of little service during the past season. Contracts are now outstanding for ninety box cars, sixty-four stock cars, and fifty gondola cars, which with cars building in the several shops of the Company are designed to fill existing vacant numbers.

The largely increased tonnage of the past year has been moved with an increase in the number of cars of only 5 $\frac{8}{10}$ per cent., and an increase of engines of 8 per cent. A much greater number of our cars was used during 1866, however, on other roads than in the previous season, so that the available equipment for freight service during the year has not, in reality, exceeded that of 1865, to the extent represented by the percentage given above.

IRON BRIDGES.

Gratifying progress has been made in the work of replacing the wooden bridges on the line of the road with substantial iron structures. An iron bridge of five spans over the Juniata at

Granville has been completed, and that at Mayes' will be ready for use in a few weeks. A double track bridge of wrought iron, including upper chord and posts, has also been built, at Altoona shop, for the Connecting Railway Company, and is now in process of erection over the Schuylkill, at Philadelphia. It consists of a single span of 262 feet 6 inches.

SECOND TRACK.

The second track on Middle Division has been extended by the addition of about one and one-half miles between Mill Creek and Bridgeport. About eight miles of second track are yet wanting between Manayunk and Bridgeport, the road-bed for which, however, is nearly ready, and it is expected the track will be completed during the coming season. On the river road, between Columbia and Middletown, only two miles of single line now remain, and the second track will probably be completed on that branch by June next.

WEST PENNSYLVANIA RAILROAD.

The extension of the West Pennsylvania Railroad was completed from Freeport to Allegheny City during the past autumn, and has been operated by this Company since December 1st, 1866.

You are respectfully referred to the accompanying reports of the Chief Engineer and Superintendent of Motive Power and Machinery for full and interesting details of the operations of their respective departments.

On the first of January last, Mr. G. C. Franciscus, Superintendent of the Philadelphia Division, was made General Agent for this Company at Philadelphia, and Mr. S. P. Darlington, Assistant Superintendent, appointed to fill the vacancy as Superintendent of the Division.

On the twentieth of January, this Company was deprived of one of its most efficient officers by the death of Mr. Samuel D. Young, Superintendent of the Middle Division. Mr. Samuel A.

Black, Assistant Superintendent, was placed in charge of the Division, and was appointed Superintendent on the tenth of April following.

On the fifteenth of July, Mr. John P. Laird, who had been connected with this Company for four years, as Superintendent of Motive Power and Machinery, resigned his position to enter the service of the Terre Haute, Alton and St. Louis Railroad Company. The position thus vacated was filled by the appointment of Mr. R. E. Ricker, then Superintendent of the Terre Haute and Indianapolis Railroad, and a gentleman of extensive experience in the various departments of railway management.

My acknowledgments are due the Chief and Resident Engineers, the Superintendent of Motive Power and Machinery, the Assistant Superintendent, the Division Superintendents, and the subordinate employés of the Company, for the cordial support and assistance which I have received at their hands during the past year.

Respectfully submitted,

EDWARD H. WILLIAMS,
General Superintendent.

REPORT OF THE SUPERINTENDENT OF MOTIVE POWER AND MACHINERY.

Altoona, Pa., January 15th, 1867.

EDWARD H. WILLIAMS, ESQ.,
General Superintendent Pennsylvania Railroad.

DEAR SIR:—The following is an exhibit in general form of the operations of the Motive Power and Machinery Department for the year ending December 31st, 1866.

At the close of the previous year, there were on the main line and branches, in service and in the several shops under repairs and re-building, engines of all classes, - - 352

To which number have been added during the past year, Engines to fill vacant numbers, as follows :

New Ten-wheeled Freight Engines, - - -	2
“ Eight-wheeled Passenger Engines, - - -	7
“ Shifting Engines, - - - - -	8
Rebuilding, - - - - -	1

Engines to fill condemned numbers :

New Shifting Engines, - - - - -	2
From Philadelphia and Erie Road, Perkins' Freight Engines, - - - - -	3

Additional numbers—

New Ten-wheeled Freight Engines, - - -	16
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Total number of Engines added	39
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Brought forward,	-	-	-	39
Engines condemned during 1866,	-	-	-	5
“ sent to Philadelphia and Erie Road,	-	-	-	2
	-	-	-	7
	-	-	-	32
Highest number of Engines,	-	-	-	-
Engines cut up to rebuild,	-	-	-	6
“ condemned and worthless to re-build,	-	-	-	14
“ attached to President's Car,	-	-	-	1
Vacant numbers,	-	-	-	1
	-	-	-	22
Total number of (available) engines of all classes, Jan- uary 1st, 1867,	-	-	-	362
Total number of (available) engines of all classes, Jan- uary 1st, 1866,	-	-	-	335
Increase of (available) engines during the year,	-	-	-	27
Total number of (available) engines of all classes, Jan- uary 1st, 1867,	-	-	-	362
Engines re-building at Altoona, January 1st, 1867, eight of which are nearly completed,	-	-	-	12
Engines in all shops under general and ordinary repairs,	-	-	-	69
	-	-	-	81
Total number of effective engines, January 1st, 1867,	-	-	-	281
Engines condemned during the year, 21, or nearly 6 per cent. of the total number.				
Total number of engines on main line and branches, January 1st, 1867,	-	-	-	362

The present condition of which is represented as follows :

In service, in first class condition, - - -	175
“ “ “ ordinary “ - - -	57
“ “ wanting general repairs, - - -	33
“ “ “ ordinary “ - - -	16
“ Altoona shops, re-building, - - -	12
“ all shops under general repairs, - - -	40
“ “ “ “ ordinary or running repairs, - - -	29
	<u>362</u>

CLASSIFICATION OF ENGINES.

Division.	Passenger.		Freight, 1st Class.		Freight, 2d Class.		Work Train Engines, Eight Wheel.	Shifting Engines	Totals.
	1st Class, Eight Wheel.	2d Class, Eight Wheel.	Eight Wheel	Ten Wheel.	Eight Wheel.	Ten Wheel.			
Philadelphia.....	14	7	6	35	...	11	10	12	95
Middle.....	17	2	19	37	5	18	10	12	120
Pittsburgh....	18	14	...	80	...	19	3	12	147
Totals.....	49	23	25	152	5	48	23	37	362

The mileage of engines, cost of repairs, fuel and stores, are exhibited in the following statement from the books of the Chief Clerk of the Motive Power Department :

MILEAGE OF ENGINES WITH TRAINS.

Division.	Passenger Mileage.	Freight Mileage.	Distributing Mileage.	Total Division Mileage.
Philadelphia	533,216	1,527,531	88,792	2,149,539
Middle.....	568,835	1,323,482	103,606	2,500,923
Pittsburgh.....	673,418	1,948,541	80,842	2,702,801
Totals.....	1,775,472	5,304,554	273,240	7,353,266

Total mileage of engines in 1866,	7,353,266
“ “ “ “ 1865,	6,604,300

Increased mileage,	- - -	748,966
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. AVERAGE MILEAGE WITH TRAINS.

Division.	Passenger Average.	Freight Average.	Total Average Passenger trains.	Total Average Freight Trains.
Philadelphia	24,661	25,459	.....	.....
Middle.....	25,856	24,069	.....	.....
Pittsburgh.....	24,051	21,511	.....	.....
Total average of Passenger and Freight trains.....			25,364	22,963

HIGHEST ENGINE MILEAGE.

Division.	Passenger Mileage.		Freight Mileage.	
	Engine.	Mileage.	Engine.	Mileage.
Philadelphia.....	184	49,896	186	34,316
Middle.....	209	46,704	288	37,846
Pittsburgh.....	334	39,917	4	36,683

COST OF ENGINE REPAIRS.

		1865.	1866.
Philadelphia Division,	-	\$197,239 05	\$213,432 95
Middle	" -	373,747 54	269,384 93
Pittsburgh	" -	480,749 07	414,987 87
		<u>1,051,735 66</u>	<u>897,805 75</u>
Cost of Fuel used,	- -	757,457 93	653,910 68
" " Oil, Waste and Tallow,		233,982 59	174,904 03
		<u>\$2,043,176 18</u>	<u>\$1,726,620 46</u>
Deduct 11 new Engines in 1865,		284,142 12	
Total cost of Repairs, Fuel and Stores, - - -	-	\$1,759,034 06	

To make a proper comparison of engine expenses for the two years, the amount charged to repairs in 1865, for 11 new engines, \$284,142 12, should be deducted, as no new engines were charged in account of repairs in the past year.

CONSUMPTION OF COAL PER MILE RUN.

			Cost per bushel.	Cost per ton.
1863, per mile, 55 lbs.				
1864, " 60		5 lbs. increase.		
1865, " 65.4 " coal alone,	5.4 " "		11½ cts.	\$2 88
" " 71.4 " adding wood.				
1866, " 66.5 " " " 4.9 " decrease,	10 ³ / ₁₀ " "			2 58

The cost of coal includes cost of wood used for kindling.

FUEL CONSUMPTION.

Year.	Number of tons Coal used.	Cost per Ton Delivered.	Total Cost of Fuel.	Remarks.
1865.....	263,006.23	\$2 88	\$757,457.93	Total amount of coal used, includes wood for kindling, reduced to tons of coal.
1866.....	253,453.75	2 58	653,910.68	
Decrease.....	9,552.48	30	103,547.25	

REPAIRS, RUNNING EXPENSES, ETC.

	1865.	1866.
Cost of Engine repairs per 100 miles run, -	\$11 62	\$12 21
" Stores used " " " -	3 54	2 38
" Fuel " " " " -	9 19	8 89
Wages of Engineers and Firemen, Cleaners and Watchmen per 100 miles run, -	6 14	6 03
Total cost per 100 miles run, -	\$30 49	\$29 51
Miles run to a quart of Oil, general average,	12.17	15.51
" " a ton of coal, " " "	28.01	29.90
Wood is rated at 1½ cords, equal to one ton of coal.		
Tallow " " 2 pounds, " one quart of oil.		

General repairs and rebuilding are included in cost of Engine repairs.

The work done at the shops of the Company during the year has comprised an unusual amount of rebuilding and general repairs, including new fire-boxes. To this cause is chiefly due the increased cost of repairs of Engines per mile run.

The prices of fuel, materials, stores, &c., have considerably declined, while the quantities used are generally larger than for the previous year.

During the summer months the wages of all our mechanics and shop men were reduced about fifteen per cent. from the previous winter rates. At the close of the year the wages generally average but little below the rates paid at the close of the last year. Including the twelve months of the year, the reductions of wages or forces have contributed but little to the reduction of expenses of this department.

Our rates of wages at West Philadelphia and Harrisburg are governed, more or less, by those of Philadelphia shops employing the same classes of labor, and at Altoona and Pittsburgh by the rates paid at the latter point.

STATEMENT OF ENGINE REPAIRS.

Rebuilt entirely, including new boilers,	-	-	21	
Thorough and general repairs,	-	-	143	
Ordinary Shop repairs, exclusive of running repairs,			95	
				259
New Fire-boxes put in,	-	-	31	
“ Half “ “	-	-	23	
				54
“ Steel Tires used,	-	-	104	
“ Iron “ “	-	-	270	
“ Chilled “ “	-	-	140	
				514

The cost of engine repairs and the consumption of fuel and stores have been much increased during the past year from

several causes. The tonnage carried has exceeded that of any previous season; the number of cars moved is greater than in 1865 by $23\frac{1}{2}$ per cent. Without a corresponding increase in the number of engines, the available power has been severely taxed, and kept in constant service in order to meet the demands upon it. This is shown by the excessive mileage made in 1866, amounting to 748,966 miles. Under these circumstances, engines could not be spared for timely, ordinary, and general repairs, and when such repairs became indispensable, their cost was thus materially increased.

With adequate power for daily service and a proper surplus for repairs, the expenses of engine repairs per mile should be considerably reduced from the figures of the past year. In addition to the repairs rendered necessary by excessive service, an unusually large number of engines has required new fire-boxes and general repairs, especially the engines of the Pittsburgh Division. When we add to the present engine equipment, the thirty-four freight engines now contracted for, and those rebuilding at Altoona, the freight power should be ample for the proper handling of the present tonnage, and to form a reserve sufficient to allow the necessary general and ordinary repairs to be more promptly and economically made.

STEEL FIRE-BOXES.

It is now five years since the introduction of steel fire-boxes. We now have seventy-six in service: not one of which has, in any respect, failed, and those first used are still perfect and show no perceptible wear. They give no trouble from cracking, leaking at seams, or drawing of stay-bolts. The use of homogeneous cast-steel for fire-boxes in coal-burning engines may be considered a complete success.

STEEL TIRES.

The use of steel tires was commenced with that of steel fire-boxes. We now have sixty-two sets running under passenger and freight engines. As compared with iron tires, their wear

is remarkable. The first set used ran 103,370 miles, (equal to five years' wear,) and on several passenger engines they have made a mileage exceeding 75,000 miles, in each case without turning. They are gradually being put under freight engines, and for all classes of service are considered safer, more durable, and hence ultimately cheaper than iron tires, while we claim for them equal or greater adhesion even on steel rails.

STEEL AXLES.

We have received during the year 600 steel axles for passenger cars, and 1,307 freight axles, which we have been gradually putting in service since July last. Our experience in their use is too limited to warrant an expression of opinion as to their durability or safety as compared with the best iron axles. We are of the opinion, however, that they will prove much superior to iron axles in every respect.

PASSENGER EQUIPMENT.

Comparative statement of cars on main line and branches at the date of the last and present reports.

KIND OF CARS.	In Service January 1, 1866.	Built During Year.	Equipment in Service January 1, 1867.	Had General Repairs, Painting, &c.	REMARKS.
Passenger.....	141	32	147	50	
Emigrant....	40	4	44	6	
Baggage.....	43	8	43	9	
Mail.....	3	1	4	3	Had general repairs.
Express.....	38	4	38	...	Including 16 Box & 22 Express.
Totals.....	262	49	276	68	

147 Passenger Cars include one Directors' Car, one Special Car, and three small cars on Western Pennsylvania Railroad.

Broken up and destroyed during the year as worthless to repair:—Passenger Cars, 26; Baggage Cars, 8; Express Cars, 4.

In addition to the above eleven Sleeping Cars have been thoroughly repaired and painted, and three new Sleeping Cars constructed during the year.

The passenger equipment is divided on main line and branches as follows:

	PASSENGER.	EMIGRANT.	BAGGAGE.	TOTALS.
Main Line.....	118	42	27	187
Branches.....	29	2	16	47
Totals.....	147	44	43	234

All additions of new passenger equipment have been built in the Company's shops. The general condition of this class of our rolling stock has been somewhat improved within the year past. With present facilities it can be readily increased to any desired extent.

At least thirty-three new passenger cars should be added within the present year, to fill vacant numbers, meet depreciation, and increase the stock to 170 cars. An addition to the present number of baggage and express cars will also be necessary.

FREIGHT EQUIPMENT.

Two hundred cars have been sold within the year to the Pittsburgh, Columbus and Cincinnati Railroad Company, including 125 Box, 50 Stock, and 25 Gondola Cars. 600 new cars (100 Stock Cars and 500 Gondolas) have been added by contract. 107 Freight Cars of all classes have been built in the Company's shops, and 9,769 Freight Cars have had general and ordinary running repairs.

In August we had 600 cars under and waiting repairs at the several shops. For the past three months this number has been reduced to a low average of 210 cars. We are now able to make thorough and prompt repairs of all freight stock, and build 300 new freight cars annually. 204 new cars are under contract, and 176 cars are building in the principal shops to fill vacant numbers.

The Freight Equipment at the close of the year compares with that of 1865, as follows:

	1865.	1866.
Box Cars, - - - - -	2,002	1,811
Stock " - - - - -	946	995
Gondola " - - - - -	1,648	2,072
Coal " - - - - -	740	728
	<u>5,336</u>	<u>5,606</u>
Increase, - - - - -	270	
		5,606
Add Individual Cars.		
"A" and "B" Dumps, Joint Cars,	600	685
Altoona Coal and Lumber Co., " -	20	.....
Penn Gas Coal Co., " -	254	291
Riddlesburg Coal and Iron Co., " -	100	.....
Westmoreland Coal Co., " -	250	301
Connellsville Gas Coal Co., " -	40	.....
Powelton Coal and Iron Co., " -	150	149
North-Western Coal & Iron Co., " -	50	50
Union Line Box " -	790	800
Other Companies, " -	.....	150
	<u>2,254</u>	<u>2,426</u>
Increase, - - - - -	172	
		2,426
Total number of Pennsylvania Railroad and Individual Cars, - - - - -		<u><u>8,032</u></u>

CARS IN MAINTENANCE OF WAY SERVICE.

			1865.	1866.
Cabin Cars,	-	-	13	16
Gondola "	-	-	98	98
Dump "	-	-	111	112
Hand "	-	-	153	164
Hand Trucks,	-	-	160	197
Derrick "	-	-	5	10
Timber "	-	-	2	2
			<u>542</u>	<u>599</u>
Increase, -	-	-	57	

599

RECAPITULATION.

Freight Equipment of the Pennsylvania Railroad,	5,606
Individual Cars, - - - - -	2,426
Cars in Maintenance of Way Service, - - -	599
	<u>8,631</u>
Add Passenger Equipment,—all classes, - - -	276
Total of all Cars on Main Line and Branches, - -	<u>8,907</u>

Wheels and Axles used in repairs and renewals:

FOR WHAT USED.	NUMBER OF AXLES.		TOTAL NUMBER OF AXLES.	NUMBER OF WHEELS.
	IRON.	STEEL.		
Engine Truck.....	75	.....	75	661
" Tender.....	185	.....	185	450
Passenger Equipment..	848	102	950	2,190
Freight "	2,155	256	2,411	5,158
Totals.....	3,268	358	3,621	8,459

GENERAL REMARKS.

Early in the year the new shops and Round House at West Philadelphia were occupied. Nearly all the machine tools have been delivered and put in use. With the assistance of Columbia and Harrisburg Shops, there are now ample facilities to maintain the general and ordinary repairs of the Philadelphia Division. The several buildings with their machinery and tools are superior in all respects.

The force employed in Columbia Shops has been reduced to the lowest minimum for ordinary running repairs required at that point.

Harrisburg Shops, during the last six months, have been employed to their full capacity, on general and ordinary repairs of both engines and cars.

Mifflin Shops are now being used as auxiliary to the shops at Harrisburg and Altoona, with a limited force employed, exclusively on ordinary and running repairs. The machine tools are kept fully employed by new work from Altoona Shops.

Several new machine tools have been added to the machinery at Tyrone, which with those soon to be delivered, will be sufficient to keep up the ordinary and running repairs of engines employed on the Branch Roads, for the present year at least.

At Altoona, the shops have been employed to their full capacity, particularly since July last, in rebuilding engines worn out and condemned, and in general and ordinary repairs of the engines for both the Middle and Pittsburgh Divisions.

Several important additions have been made to the machinery, and further additions are authorized. When these are added, the capacity of these shops will be materially increased. The new smith shop was completed and occupied in July. The new Round House is nearly completed, and is at present being used for storing engines awaiting general or other repairs. It is a substantial, convenient structure, and, with the two other Round Houses, will afford ample room for housing engines and for making Round House repairs more conveniently than heretofore.

The enlargement of the engine shed at Conemaugh has been completed and occupied about three months. This improvement makes room for fifteen engines centring at this point. Still further additions are, however, imperatively required.

The present engine shed at Blairsville is entirely inadequate to the proper care and shelter of the increased number of engines required to be kept at that point by the opening of the West Pennsylvania Railroad extension. I would suggest the importance of building a Round House to accommodate twelve or fifteen engines, together with machine and smith shops, of a suitable size to maintain properly the running repairs of the power employed on the West Pennsylvania Railroad.

Within the past three years, the number of locomotives has been so largely increased, the service imposed upon them so severe, and the depreciation of the older engines so rapid, that with the facilities at command it has not been found possible to improve the condition of the motive power, and at the same time maintain the general and ordinary repairs at a proper standard to secure to the fullest extent, effective and economical working. This has been particularly the case on the Pittsburgh Division, where the engine service has been most severe. It has, therefore, been found necessary to increase the machine facilities in Pittsburgh as well as in Altoona Shops, in order to meet the increased demand for general power repairs.

Additions to the machinery in the principal shops, particularly to the list of heavy tools, will be necessary during the present year, to a greater or less extent.

The Master Mechanics and Foremen of the several shops, the subordinate officers, and the clerks and employes of the department generally, have performed their duties in a prompt, efficient and creditable manner.

Respectfully submitted,

R. E. RICKER,
Sup't Motive Power and Machinery.

REPORT OF THE CHIEF ENGINEER
OF THE
PENNSYLVANIA RAILROAD COMPANY.

MAINTENANCE OF WAY DEPARTMENT,
Altoona, January 10th, 1867.

E. H. WILLIAMS, Esq.,
General Superintendent.

SIR:—The following report on the business of this department for the past year is respectfully submitted.

ROAD-BED AND RAILWAY SUPERSTRUCTURE.

The grounds adjacent to the new engine house and shops at West Philadelphia, have been filled up to the proper level, the temporary tracks in use during the construction of the buildings have been relaid in a permanent manner, and a large amount of new track put down. The West Philadelphia yard has been much improved by broken stone filling, and the renewal of many of the sidings.

The Greenwich branch of the Delaware extension from the Point Breeze branch, at the corner of Twenty-fifth street and Long lane, to the Delaware river, near Greenwich Point, was placed in charge of this department on the first of June last. The road-bed being principally new embankment, required during the remainder of the summer, a considerable amount of gravel

filling. Some ballasting was also necessary on the Point Breeze branch. Both of these roads are now in good condition.

The second track on river road between Marietta and Middletown is completed, with the exception of some back-filling, and the superstructure of the bridge over Conewago creek, which is in progress. Between Columbia and Marietta there remains a space of only about two miles, the grading of which will be finished during the present winter, so that by the early part of summer, the second track on this division of the road will be complete.

The grading for second track between Manayunk and the rock cut east of Newton Hamilton, which was commenced in the latter part of July, is progressing favorably; a portion of the track is laid, and the remainder will be ready for use early in the spring,

The retaining wall at Jack's Narrows has been completed for a length of 2,535 feet, and built to a height above the water level of the canal for the remaining distance. The work is progressing rapidly, and the road-bed will be ready for the second track next summer.

The second track extension from Mill creek to Bridgeport was brought into use in July. Small extensions have also been made at Mount Union and Mapleton.

The single track at Johnstown is now reduced to 530 feet, the length of the bridge over Conemaugh river. All the sidings at Pittsburgh not relaid during 1865, and several at other points on the Pittsburgh division, have been renewed, and several new sidings constructed.

The maintenance of way on the Steubenville Extension from the passenger station at Pittsburgh to the passenger and freight station at South Pittsburgh, a distance of little over a mile, devolved upon this department at the commencement of the year.

The new track laid during the year is as follows :

Second track between Marietta and Middletown, 3 miles, 507 feet.

"	"	"	Mill Creek and Bridgep't, 1 mile,	970	"
"	"	"	at Mount Union,	800	"
"	"	"	Mapleton,	1,310	"
"	"	"	Johnstown,	1,000	"
Sidings at	West Philadelphia,		4 miles,	178	"
"	Washington street wharf,			582	"
"	Leaman Place,			550	"
"	Lancaster,			358	"
"	Columbia,			2,585	"
"	Marietta,			280	"
"	Branch Junction,			1,104	"
"	Baldwin,			890	"
"	Harrisburg,	1 m.,		649	"
"	Marysville,			760	"
"	Cove,			400	"
"	Duncannon,			600	"
"	Perryville,			175	"
"	Mifflin,			960	"
"	Granville,			300	"
"	Manayunk,			438	"
"	Huntingdon,			1,635	"
"	Altoona,	1 m.,		4,137	"
"	Hollidaysburg Branch,			185	"
"	Cresson,			295	"
"	Lilly's,			2,386	"
"	Portage,			1,123	"
"	Conemaugh,			2,451	"
"	Florence,			100	"
"	Lockport,			1,070	"
"	Blairsville Junction,			2,175	"
"	Derry,			387	"
"	Brintons,			143	"
"	Homewood,			3,553	"
"	East Liberty,			569	"
"	Shadyside,			220	"
"	Pittsburgh,			2,660	"

Total, 17 m., 1,525 feet.

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

At Susquehanna Bridge,	1 mile, 559 feet.
“ Maye’s Bridge,	850 “
Between Manayunk and Newton Hamilton, . .	4 m., 1,388 “
“ Mount Union and Bridgeport, . . 4 “	288 “
Over Conemaugh Bridge, at Johnstown, . .	530 “
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Total,	9 m., 3,615 feet.
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The number of miles of single track in use at this date is as follows :

Main line, including sidings,	850.5 miles.
Branches owned, including sidings,	44.6 “
Branches leased, “ “	182.1 “
Private sidings and branches,	31.3 “
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Total,	1,108.5 miles.
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The following quantities of materials have been used during the year:

	IRON RAILS. Tons.	STEEL RAILS. Tons.	WROUGHT-IRON CHAINS.	SPRIG JOINTS.	SPIKES. Lbs.	CROSS-TIES.
Philadelphia to Columbia...	3,804	166	2,099	8,066	54,474	80,008
Harrisburg and Lan. R. R.	1,868	280	852	4,114	61,577	48,294
Harrisburg to Altoona.....	4,891	605	5,194	18,998	197,967	121,122
Altoona to Pittsburgh.....	5,147	540	4,822	10,676	178,114	121,498
Delaware Extension.....	36	.....	25	.....	1,690	126
E. B. & W. R. R.....	84	.....	.....	.....	2,706	2,947
M. & C. C. R. R.....	.....	.....	12	.....	1,050	150
T. & C. B. R.....	798	.....	3,155	.....	80,750	19,288
B. E. V. R. R.....	43	.....	38	.....	3,889	7,096
Holidaysburg Branch.....	5	.....	12	.....	1,780	4,880
E. & C. R. B.....	9	.....	.....	.....	3,610	2,608
Indiana Branch.....	195	.....	1,089	.....	4,733	8,228
West Penn's R. R.....	.....	.....	.....	.....	1,180	1,870
	15,880	1,541	16,298	36,854	548,420	412,105

10,849 tons of the iron rails were obtained from re-rolling. In the month of July, 1864, seventy-eight tons of crucible steel rails were laid down at Altoona. In October, 1864, the same quantity was laid at Pittsburgh, and in June, 1865, 100 tons of the same description of rails were laid at Philadelphia and Altoona. These rails were of the Philadelphia and Erie pattern, four inches in height, weighing fifty-six pounds per yard. They

were all placed on sidings, upon which a large amount of work is done at slow rates of speed; none of them have broken, and they show at this date very slight appearance of wear. During October and November, 1865, 270 tons of Bessemer rails of the same pattern were laid on similar sidings, at the principal stations. Some few of these rails have broken down at the ends, probably on account of having been cut off too close at the works, but they are generally wearing remarkably well. At some of the points where the above rails have been in use, two or three sets of iron rails would have been worn out, while the steel rails are yet in good condition. During the past year, 1,541 tons of Bessemer rails have been laid down in the main tracks; about 600 tons of which are of the Philadelphia and Erie pattern, and the balance are of the pattern adopted on this road, having a height of four and a-half inches, and weighing sixty-seven pounds per yard. Experiments are now in progress to determine the relative endurance of iron and steel rails, by placing them where they are subjected to exactly the same usage.

BRIDGES.

The trestle work at the west end of the bridge over Schuylkill river on the Delaware extension, is undergoing a thorough repair, as several years may elapse before the filling in is completed.

The old piers at Big Conestoga bridge have been taken down and the masonry of two new piers and abutment facings is rapidly approaching completion. The iron superstructure is also in course of preparation, and will be ready for raising within the next two months. The masonry of the bridge over the canal west of Middletown has been renewed, and an iron superstructure of eighty feet in length erected.

At Susquehanna bridge 41 chord pieces, 970 floor beams, 379 braces, and 38 arch pieces, have been renewed during the year. The iron bridge of five spans over the Juniata river at Granville, which was in progress at this time last year, was completed soon

after. A similar bridge is now in course of erection over the Juniata at Mayes, two lines of trusses being completed and the third well advanced. The iron truss bridge over the canal at Mayes has been moved to Manayunk, to replace a wooden bridge over the canal at that point; and an iron plate bridge with less depth of truss, has been erected at Mayes, for the purpose of affording greater headway for boats on the canal. General repairs have been made to several of the bridges on the Middle division, and most of the iron bridges repainted.

Four overhead road bridges on the Philadelphia division and three on the Middle division, have been renewed; wooden stringers have been replaced by iron on ten bridges of spans under 26 feet on the former, and three on the latter division; and a number of stone culverts built, varying from two to three feet span.

On the Hollidaysburg Branch a wooden Howe truss bridge of seventy feet clear span has been erected over Gibboney's run.

Stone masonry for various purpose of construction and renewal during the year, has been built as follows :

Philadelphia Division,	.	..	12,180	Perches.
Middle, " . . .	.	.	26,982	"
Pittsburgh, " . . .	.	.	2,803	"
T. & C. and B. E. V. branches,	.	.	3,440	"
			<hr/>	
			45,405	"

ENGINE HOUSES AND MACHINE SHOPS.

The new engine house at West Philadelphia was ready for use in the early part of the year. A vault has been constructed near the paint shop, for storing inflammable materials; the old car shops removed, and sundry additions and improvements made at the shops. The brick building near the engine house, formerly occupied as a factory and purchased by the Company, has been fitted up as a carpenter shop for the Maintenance of Way Department.

At Huntingdon the blacksmith shop has been completed and a store house for iron, 17 by 33 feet, erected. At Altoona, the brick blacksmith shop, 60 by 274 feet, with twenty double fires and a furnace, has been finished, and a brick engine house, with capacity for forty-four engines, is nearly completed.

The old part of the engine house at Conemaugh has been rebuilt to correspond with the more modern portion; the engine house at Brinton's has been enlarged so as to accommodate the local passenger engine; and at Pittsburgh a sand house and shed for storing lumber, 40 by 100 feet, have been erected.

WOOD, WATER AND COAL STATIONS.

A stone reservoir of 50 feet diameter has been built at Steamboat station, and new pipes laid of larger calibre than those heretofore in use. Two additional tubs have been put up at Downingtown, and the station placed in a very efficient condition.

A new wood shed has been erected at Newport. At Mifflin the wood shed has been rebuilt, and a part of it fitted up for storing materials; a line of pipe has been extended to the river, and by means of a steam pump placed in the machine shop, an abundant supply of water is obtained. Larger pipes have been substituted at Lewistown and Tyrone, and general repairs made at several water stations on Middle division. On account of the reduced consumption of wood, the storing of wood at Cove, Baily's, Tuscarora, Black Log, Anderson's, Manayunk, and Mapleton stations, has been discontinued.

A new building and tank have been put up at Alligrippus. A stone reservoir of 40 feet diameter has been built at Summerhill. The supply pipes at Conemaugh and Derry have been replaced by others of larger size, and at the latter point have been extended up the stream 931 feet to a good position where a substantial dam has been constructed. At Latrobe the well has been reamed out, and a larger tube and pump put in; two

additional tanks have been erected and an abundant supply of water provided. The boring at East Liberty stock yards has resulted in giving a supply of water, which it is believed will be ample for all purposes. A stone reservoir 40 feet in diameter has been built at a point between Turtle creek and Brinton's stations, and pipes are being laid to conduct the water into it from a small stream near by.

PASSENGER AND FREIGHT STATIONS.

General repairs to a considerable extent have been required at the freight depot at Thirteenth and Market streets, Philadelphia. A commodious building for passengers, with a dwelling house attached, has been erected at City avenue. A large stone stable, with blacksmith shop attached, has been built at West Philadelphia for the accommodation of the mules employed in hauling freight cars; and a brick building erected for the horses and vehicles required for the business of the Company.

The warehouse at Perryville has been repaired and enlarged, and a stock yard provided. An addition has also been made to the warehouse at Mount Union. A warehouse, 24 by 48 feet, has been built at Birmingham, and a stone wharf, 310 feet in length, at Mill creek station.

At Pittsburgh, the warehouse for the Steubenville Extension has been lengthened 155 feet, and a brick building 42 feet square and three stories in height, erected for offices; the adjacent ground has been graded, a paved entrance provided for wagons, &c., and the tracks relaid. A brick building, 24 by 67 feet, for storing ice, has been built near the passenger station. A large amount of repairs has been made along the entire line of road to passenger and freight buildings and platforms.

WORKMEN'S HOUSES.

Houses for foremen of road repairs have been built at New Florence and Blairsville Junction. A large dwelling house

adjacent to the road at Pittsburgh, situated on land purchased for track extensions, has been fitted up for the accommodation of train-men.

A number of small buildings for telegraph offices, tool houses and other purposes, have been erected at various points along the road.

REAL ESTATE.

The following properties have been added to the Real Estate of the Company, viz:

Several lots at Columbia, Lancaster County.

A lot at Highspire, Dauphin County.

Tract of land, with stone quarry, at Marysville, Perry County.

Small lot at West end of Susquehanna bridge “

Lot at Duncannon, - - Perry County.

Lot near Millerstown, - “ “

Lot at Perryville, - - Juniata County.

Lot at Granville, - - Mifflin County.

Lot at Huntingdon, - - Huntingdon County.

Lot at Altoona, - - - Blair County.

Lot at Gallitzin, - - - Cambria County.

Lot near Cresson, - - “ “

Lot at Lilly's Station, - “ “

Lot at Blacklick, - - Indiana County.

Lot and water privilege at Derry, Westmoreland County.

“ “ “ near Brinton's, Allegheny County.

Several Lots at Pittsburgh.

A Lot at Altoona and one in Logan Township, Blair County, not being required for the business of the Company, have been sold.

FUEL.

The consumption of fuel during the year was as follows :

	Cords of Wood.	Net Tons Coal.
Philadelphia Division.....	5,927	41,910
Middle " 	12,378	97,804
Pittsburgh " 	9,259	78,897
T. & C. and B. E. V. Branches.....	892	8,577
Consumed by Locomotives.....	28,456	226,688
" at Shops and Stations ....	.....	16,080
Total....	28,456	242,768

The rolling stock in service of this department consists of thirteen locomotives, sixteen box-cabin cars, ninety-eight eight-wheeled trucks, 112 four-wheeled dumps, 164 hand cars, 197 hand trucks, ten four-wheeled derrick cars, two four-wheeled timber trucks, and two four-wheeled scaffold cars.

Extra engines and cars have been employed occasionally during the year, for moving materials.

BRANCH ROADS.

On the East Brandywine and Waynesburg, and the Ebensburg and Cresson Railroads, no work has been done beyond ordinary repairs. Both of these roads are in good condition.

On the Mifflin and Centre County Railroad, small buildings for the accommodation of passengers have been erected at Lewistown and Freedom Forge. Several of the bridges have been raised; some repairs made to the bridge over Juniata river, and 1,658 feet of track laid on private sidings.

On the Tyrone and Clearfield Railroad, two rock cuts have been widened, and a considerable amount of grading done adjacent to the engine house at Tyrone, the material being used to fill up the trestle work, a section of which, 470 feet in length, is now ready for the permanent track. Extensions of sidings have been made at Sandy Ridge and Philipsburg. The forty-five pound rails between Tyrone and Bald Eagle Junction have been replaced by rails of fifty-six pounds per yard. A branch has been constructed, one and six-tenths miles in length, to the Decatur coal mines. The length of new track laid during the year is three and nine-tenths miles, including one and one-tenth miles of private siding.

A station house for passengers at Osceola, was completed in the early part of the year. A water station has been established about one mile north of Osceola, and a house and tank put up at Tyrone engine house. The machine shop, which was in progress at date of last report, was ready for occupation in the month of August.

The general condition of the road-bed and track on the Bald Eagle Valley Railroad has been much improved. The main track at Bellefonte has been extended 523 feet; new sidings have been laid at Hannah Furnace, Port Matilda, Bellefonte and Mount Eagle; and additions made to the sidings at Curtin, Howard, Eagleville and Beech Creek. The whole amount of new track laid is one and five-tenth miles, of which four-tenths of a mile are for private sidings. New masonry has been built for twenty culverts and small bridges, and the superstructure of several of the latter renewed. Warehouses, with rooms for passengers attached, have been erected at Port Matilda, Julian, Beech Creek and Milesburg, all of which are in use, except the latter, which is not entirely completed. A dwelling house for foreman of road repairs has been built at Bald Eagle.

During the past year, the Western Pennsylvania Railroad has been extended down the western side of the Allegheny river to Allegheny city, and the whole length, (sixty-three seven-

tenths miles,) was opened for travel in the month of November. The portion of road in use during the year has been kept in good order at moderate expense.

The tracks through the West Philadelphia yard, for the accommodation of the Delaware Extension and Junction Railroad business, were completed in the month of July.

Very respectfully,

WM. HASELL WILSON,
Chief Engineer.

REPORT OF THE CHIEF ENGINEER

OF THE

CANAL DEPARTMENT.

CANAL DEPARTMENT, PENNA. RAIL ROAD CO.,

Harrisburg, January 23, 1867.

To the President and Directors
of the Pennsylvania Rail Road Company.

GENTLEMEN:—The following is my Annual Report of the operations on the Pennsylvania Canal for the year 1866:—embracing also the receipts and expenses of the previous years; and estimates for completing the enlargement.

The Canal was opened on the first of April, and closed on the thirteenth of December: the navigation was open and uninterrupted for 257 days.

The Receipts	were,	.	.	\$297,867 16
The Expenditures	"	.	.	233,437 98
				<hr/>
The net earnings	"	.	.	<u>\$64,429 18</u>

The ordinary repair expenses were, \$58,248 98

The expenses properly chargeable to
the flood of March, 1865, and in-
cluded in ordinary repair expenses, 50,000 00
_____ \$108,248 98

The enlargement, including the new mechanical
work, 89,816 00

The operating expenses, being those of Lock-keep-
ers, Collectors, Taxes, &c., were, . . . 35,373 00

Amount, \$233,437 98

The maintenance or ordinary repair expenses were \$21,070 77 less than in 1864; the operating expenses were \$36,549 49 less, and the whole amount expended was \$77,117 34 less than in that year. (Owing to the destructive flood of March, 1865, no comparison is made with the operations in that year.)

The following statement shows the earnings, expenses, and profit or loss, by Divisions:

	EARNINGS.	EXPENSES.	PROFIT.	LOSS.
Susquehanna Division...	\$252,681 42	\$180,212 93	\$122,468 49	.....
Lower Juniata Division..	29,815 66	75,864 30	.....	\$46,048 64
Upper Juniata Division..	5,559 66	25,837 20	.....	20,277 54
Western Division .....	.....	1,723 55	.....	1,723 55
Incidental Receipts.....	10,010 42	.....	10,010 42	.....
			\$182,478 91	
	\$297,867 16	\$283,487 98	68,049 73	\$68,049 73
		Profit.....	\$64,429 18	

The Anthracite coal freight amounted to . .	588,542 tons.
“ Bituminous “ “ “ . .	15,433 “
“ Lumber “ “ “ . .	179,459 “
“ Miscellaneous “ “ “ . .	149,170 “
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The total amount of freight was . .	<u>932,604 “</u>

The coal came from the following places :

From the Wyoming Valley and North Br. Canals,	368,928 tons.
“ the Shamokin Region,	33,966 “
“ Trevorton,	13,533 “
“ Lyken's Valley,	172,115 “
“ Broad Top and Allegheny,	15,433 “
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Amount,	<u>603,975 “</u>

Of this amount 316,615 tons passed through to Tide Water ; 264,676 tons went to points on the Pennsylvania Canal, 20,475 tons went to Lebanon, on the the Union Canal, and the balance, 2,209 tons, to points on the other connecting canals.

The lumber came almost entirely from the West Branch and Susquehanna Canal, and was consigned as follows :

To Philadelphia,	77,723 tons.
Baltimore,	46,044 “
Havre De Grace,	14,427 “
New York,	2,724 “
Points on the Pennsylvania Canal,	28,161 “
Points on the Union Canal,	10,380 “
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Amount,	<u>179,459 tons.</u>

Nearly all the trade was descending ; 53,935 tons only came up the canal, the greater part of which was iron ore, from the Tide Water and the Union Canals, consigned mostly to points on the Pennsylvania Canal. The entire tonnage for the year

was carried on the Pennsylvania Canal, an average distance of *thirty-seven and one-half miles*; being equal only to 202,154 tons passing over the whole length of the canal—173 miles.

The net earnings were \$66,359 27 more than in 1864, although the gross receipts were \$10,748 07 less.

The aggregate amount of freight carried was 119,740 tons less than in 1864. The decrease being—

In Coal,	25,848 tons.
“ Lumber,	16,481 “
“ Up Trade,	68,861 “
And in Miscellaneous Descending Freight, 8,550	“
	<hr/>
	119,740
	<hr/>
	“

The Lyken's Valley coal trade *increased* 64,310 tons over any previous year, and paid a higher rate of toll.

IMPROVEMENTS MADE DURING THE YEAR.

The principal mechanical structures built new

On the Susquehanna Division,

Were; one lock, two lock-houses, three canal bridge superstructures, six bridge abutments, three miles in length of outside protection wall, raised three to five feet above its original height; and materials were delivered for the building of one cut-stone lock, one aqueduct superstructure and masonry, and six bridges. There was in addition to the mechanical work, a large amount of labor done at raising and facing the canal banks.

On the Lower Juniata Division,

There were rebuilt, eighteen canal bridges, two lock-houses, two culverts, (extended), one waste-way, and one thousand feet in length of outside protection wall and inside slope wall; and materials were delivered for two cut-stone locks, one culvert, six waste-ways, four bridge abutments, two canal bridge super-

structures of wood, and one of iron. There was a large amount of work done besides, at deepening a portion of the canal and raising the banks.

On the Upper Juniata Division,

There were built new, one aqueduct, (masonry and superstructure over the south branch of the Juniata river,) one dam abutment of cement masonry, one stone water-way, and three farm and road bridges.

The principal mechanical work now in progress of construction, and to be finished before the opening of the canal next spring, consists of three cut-stone locks, six waste-ways, two culverts, nine bridge abutments, five bridge superstructures of wood, and two of iron:—also an aqueduct over Stone creek, at Dauphin, the superstructure of which is eighty-seven feet in length, to be of wood, and the masonry of hammer-dressed stone work, laid in hydraulic cement mortar. The materials for these structures are mostly delivered on the ground, and paid for in the expenses of the past year.

The iron aqueduct superstructure to cross the Swatara, at Middletown, is nearly completed. It is two hundred and eighty feet in length, but will not be raised until next winter.

The value of materials on hand is	.	\$48,766 16
“ “ Tools,	. . .	6,190 45
“ “ Steam Dredge, boats and flats,		19,000 00
“ “ Steamboats and Barge,	.	15,000 00
“ “ Repair Flats,	. . .	6,850 00
		<hr/>
		\$95,806 61
		<hr/>

RECEIPTS AND EXPENDITURES IN THE PAST YEARS.

The earnings of the Canals since they came into possession of the Pennsylvania Railroad Company in August, 1857, have been		\$2,180,693 88
All of which has been expended on the work, except		61,047 17
The amount actually disbursed has been		<u>\$2,119,646 71</u>
Expended thus : For operating the Canals,		352,614 55
For ordinary repairs, or maintenance,		655,791 76
		<u>\$1,008,406 31</u>
And for enlargement and renewal of mechanical structures,		1,111,240 40
Total,		<u>\$2,119,646 71</u>
Of the foregoing disbursements there was expended on the Western Divisions,		\$219,179 54
And on the Juniata Divisions,		815,890 53
		<u>\$1,035,070 07</u>
The entire receipts from the Western Divisions have been,		\$85,295 84
And from the Juniata Divisions,		237,742 41
		<u>323,038 25</u>
Showing the amount expended over receipts on those portions of the Canal (being a loss of)		\$712,031 82
This loss has been more than recovered by the profits or revenues on the Susquehanna Division of the Canal.		
The Western Divisions are abandoned for Canal purposes ; the mechanical structures on the Upper Juniata Division are nearly all rebuilt, and the bed and banks of that Division are now in good repair, therefore those unprofitable and heretofore expensive portions of the Canal, will not hereafter be sources of very serious expense.		

The Susquehanna Division on the other hand has	
earned,	\$1,774,477 92
And there has been expended on it,	1,084,576 54
	<hr/>
Showing a net profit of,	\$689,901 38
And if we add to this the amount expended for	
enlargement,	506,332 19
	<hr/>
The Division will show a net profit (covering)	\$1,196,233 57
a period of nine years and five months) of }	

OF THE HISTORY OF THE CANAL.

The Pennsylvania Canal has been owned and operated by the Pennsylvania Railroad Company since August 1st, 1857. In December, 1865, the Western Divisions, 102 miles in length, were finally abandoned for the purposes of navigation, leaving the Juniata and Susquehanna Divisions, 178 miles, including feeders, to be kept up and operated as required by law.

The Canal, when it came into the possession of the Company, was in a very dilapidated condition throughout, so filled up and out of repair that it was unfit for use at many places. The through trade had been wholly diverted from it to the Pennsylvania Railroad, and the only remaining tonnage that paid expenses was that of coal and lumber coming on at the mouth of the Juniata. About one half of this trade stopped at different points on the Susquehanna Division, and the balance passed on to Tide Water. The average distance the tonnage was carried, and for which tolls were received, did not exceed thirty miles, whilst the whole line, having an aggregate length of 280 miles, had to be maintained and operated. The trade has not changed materially since that time. It increased somewhat up to 1864, but has decreased in the last two years.

The condition and capacity of the Canal, when owned and operated by the State, are described in the following extracts from the Annual Report for the year 1855, of Edward F. Gay, Esq., then State Engineer. In speaking of "The Eastern Division, Main Line," he says "The original dimensions of

this Canal as constructed, contemplated a water surface of forty feet wide, depth of water four feet, and width of bottom twenty-eight feet. At the time of my examination, the water surface was found unimpaired, but the bottom width on a portion of the line had become reduced to an average of sixteen feet, and in some cases to not more than ten feet wide. At such points the water does not exceed three and a-half feet in depth, which gradually diminishing at the sides renders the passage of boats exceedingly difficult. Indeed it is not unusual in such places to see what is technically called by the boatmen a 'jam,' that is, two loaded boats passing each other in opposite directions become wedged in between the sides of the Canal, thus obstructing the passage of other boats, until a 'swell' of water from the nearest lock above sets them afloat, and enables them, to proceed. In the meantime a large number of boats accumulate, and serious detentions are caused. * * * This is one of the most important Divisions in the State, but the business is done to great disadvantage, and it must be evident from the description here given, that its capacity is less by nearly one-fourth than it was originally designed to be. Hence the cost of transportation upon it is increased by that amount, as the same power, the same complement of men, and the same time only is required to pass a boat carrying 100 tons, that would be for one with seventy-five tons."

The part of the Canal here described by Mr. Gay, now known as the Susquehanna Division, has at present a depth of five feet water, a full width at water surface of forty-five feet, and at Canal bottom a width of thirty feet. The average tonnage of boats for a number of years past has been ninety-five tons, and boats carrying from 130 to 140 tons, now pass without difficulty. This part of the Canal has therefore been increased to double the capacity it had when purchased from the State, and the cost of transportation, according to Mr. Gay's reasoning, which is correct, has been reduced fully fifty per cent. On this Division the mechanical structures have been for the most part rebuilt in a complete and permanent manner, and of sufficient dimensions for the enlargement of the Canal.

The greater part of the mechanical work on the Juniata Divisions has also been rebuilt, and the depth and width of the Canal much improved.

The enlargement authorized by your Board, was to deepen the Canal to five feet water, to widen the locks on the Lower Juniata to correspond with those on the Susquehanna, and when the business should justify it to extend the locks on the Susquehanna Division to twice their present length.

All receipts beyond what was necessary to maintain and operate the Canal, have been applied to the enlargement contemplated. There will be needed however, in addition to the amount already expended, \$400,000 to complete the work to Huntingdon, and it will require from four to five years to do the work, unless other means than the surplus earnings shall be provided for that purpose; as but little additional trade can be expected until the enlargement is completed to that place. The plan of enlarging the Canal out of its earnings is slow, and keeps idle a large investment, and useless the greater part of the Canal, for an unnecessary length of time.

THE CONNECTING CANALS; AND ESTIMATES FOR AN ENLARGEMENT, ETC.

The Companies owning the several connecting Canals on the Susquehanna and its tributaries have become impressed with the fact, that their Canals cannot, in their present condition, long hold even the limited trade they now have, and that an early enlargement has become necessary to their business success. A depth of five feet is now regarded as insufficient. Seven feet has been proposed and advocated as the proper depth to be attained, but in view of the great expense necessary to so thorough an improvement, it is deemed objectionable. A depth of six feet water is therefore regarded with most favor:—having that depth throughout, it will still be necessary to widen the Canals to a minimum width of thirty-three feet on bottom, and fifty feet at top water line, in order to enable loaded boats to pass without difficulty.

If an increased enlargement to these dimensions can be carried into effect on the connecting Canals, I would recommend most decidedly that it be adopted on the Pennsylvania Canal. The additional expense necessary to put one foot more water in your Canal, I estimate at \$2,200 per mile, which will in round numbers amount to \$300,000, for the 137 miles from Columbia to Huntingdon dam. The whole expense yet to be incurred, for deepening that part of the Canal to six feet water, and for otherwise enlarging it to correspond with that depth, is estimated at \$850,000, which with what has already been expended, will swell the total cost of the enlargement of the Canal, when completed, to near \$2,000,000. These estimates, do not cover the cost of repairing any damages that may be caused by extraordinary freshets before the work is done, but they do include the cost of making the work so permanent that serious damages from floods, as heretofore, need not be apprehended, after it is completed.

This additional foot in depth of water, will enable a boat to pass the single locks, carrying 175 tons, or the extended locks with 350 tons, being about thirty per cent. more than can be carried on five feet water, and nearly twice the average tonnage of the boats now in use, on the present prevailing depth of four feet.

The Canal enlarged as proposed with single lock chambers, (17 x 90 feet) will have in an ordinary boating season, a tonnage carrying capacity of 3,000,000 tons, and with locks extended to 180 feet in length, 5,000,000 tons.

If the necessary means are provided, the enlargement can be completed in two years. And in making it, the navigation on the Susquehanna Division need not be interrupted; but on the Juniata, where it may be found advisable to make entire changes in portions of the line, the Canal would be closed, probably all of one season.

The Companies controlling the out-let Canals,—the Susquehanna and Tide Water, extending to the Chesapeake Bay, and

the Union Canal, connecting with the Delaware by the Schuylkill navigation,—are desirous for an early enlargement of the Pennsylvania Canal to Huntingdon, and they propose to enlarge and improve their respective Canals accordingly, and to equalize toll charges on through freight.

The West Branch and Susquehanna, and the Wyoming Valley Canals would, it is believed, be at the same time enlarged and improved to correspond with those below.

The Coal fields tributary to this route now produce 3,000,000 tons a year, one-third at least of which should be carried by Canal.

The Tabular Statement below shows the present capacity of the mines in the several coal regions accessible to markets by this route; the coal shipped in 1866 by Canal, and by Rail separately; and an estimate of the amount that could be controlled if the Canals were enlarged:

	Present Capacity of Mines.	Shipped by Canal in 1866.	Shipped by Rail in 1866.	Probable Annual Shipments by Canal if enlarged.
Lyken's Valley,.....	800,000	171,928	62,000	250,000
Trevorton,.....	100,000	18,752	81,000	80,000
Shamokin,	800,000	28,916	77,000	100,000
Wyoming,	1,500,000	368,944	101,000	700,000
Broad Top,.....	600,000	11,196	254,524	175,000
Allegheny,	100,000	4,237.		20,000
Philipsburg,	100,000			80,000
Gas Coal,.....	500 000			100,000
Total,.....	4,000,000	608,000		1,405,000

The coal tonnage here estimated in anticipation of an enlarged Canal, is regarded as below, rather than above what it probably will amount to, say two years hence. The extensive Iron Works and other manufactories springing up along the line, will alone consume most of the increased quantities given.

It can hardly be doubted that an early and thorough enlargement of these several Canals, will make this a most important coal carrying line. The Pennsylvania Canal will then become a profitable improvement between Columbia and Huntingdon. The Upper Juniata Division, it is believed, may be made self-sustaining through its limited trade, and by judiciously leasing its surplus water power.

Under the views herein expressed, I most respectfully urge the adoption of measures to enlarge the Canals of this Company, if the connecting Canal Companies will enter into permanent and satisfactory arrangements for the movement of joint through traffic.

The Tabular Statements attached to this Report, give in detail much valuable information not otherwise given.

All of which is respectfully submitted.

THOMAS T. WIERMAN,

Chief Engineer.

ANNUAL REPORT FOR 1866.

CANAL DEPARTMENT.—STATEMENT No. 1.

Showing the receipts from all sources by months.

In January, the receipts were,.....	\$410 96
“ February, “ “ “	1,029 85
“ March, “ “ “	864 99
“ April, “ “ “	16,696 98
“ May, “ “ “	88,651 55
“ June, “ “ “	41,784 85
“ July, “ “ “	84,019 28
“ August, “ “ “	41,886 59
“ September, “ “ “	42,470 71
“ October, “ “ “	36,477 80
“ November, “ “ “	84,575 31
“ December, “ “ “	9,049 36
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Total receipts for year.	\$297,867 16

ANNUAL REPORT, 1866. CANAL DEPARTMENT.—STATEMENT No. 2.

Showing in Detail the Expenses of Operating the Canal for the Year 1866.

	SUSQUEHANNA DIVISION.	LOWER JUNIATA DIVISION.	UPPER JUNIATA DIVISION.	TOTAL.
Labor	\$2,044 20	\$176 00	.....	\$2,220 20
Watchmen.....	87 50	8 00	\$100 00	145 50
Lock-Keepers.....	7,165 83	2,646 77	2,019 96	11,832 56
Weigh-Masters.....	601 04	88 33	40 00	724 37
Collectors	4,762 76	702 86	837 00	5,802 62
Stationary, Printing and Office Expenses.....	1,460 11	892 44	133 66	1,986 21
Rents and Furniture.....	48 98	80 00	27 89	106 87
Superintendence.....	1,652 17	1,219 66	432 01	3,303 84
Incidentals.....	768 89	149 94	11 86	929 69
Drawbacks and Overcharges.....	.....	827 50	.....	827 50
State Revenue and Tonnage Tax.....	3,127 87	895 12	277 04	4,299 53
United States Excise Tax.....	2,638 66	455 67	105 28	3,194 61
Amounts.....	\$24,302 01	\$7,587 29	\$8,488 70	\$36,378 00

ANNUAL REPORT, 1866. CANAL DEPARTMENT.—STATEMENT NO. 3.

Showing the Expenses, Receipts, Profit or Loss on each Division, for the year 1866.

	Mile.	EXPENSES.				TOTAL EXPENSES.	TOTAL RECEIPTS.	Profit.	Loss.
		Repairs.	Enlargement.	Total Maintenance.	Operating.				
Susquehanna Division.....	46	\$63,393 30	\$42,517 62	\$105,910 92	\$24,302 01	\$130,212 93	\$252,681 42	\$122,463 49	.....
Lower Juniata Division.....	90	33,868 06	84,208 96	68,077 01	7,587 29	75,664 30	29,615 66	.....	\$46,048 64
Upper Juniata Division.....	37	9,264 07	13,089 43	22,353 50	3,483 70	25,837 20	5,559 66	.....	20,277 64
Western Division	73	1,723 55	.....	1,723 55	.....	1,723 55	.....	.....	1,723 55
Incidental Receipts.....	.....	.....	.....	.....	.....	.....	10,010 42	10,010 42	.....
Totals.....	246	\$108,248 98	\$59,816 00	\$168,064 98	\$35,373 00	\$233,437 98	\$297,867 16	\$132,478 91	\$68,049 78
Profit for the year 1866.....									
								68,049 78	
								.....	\$64,429 18

ANNUAL REPORT, 1866. CANAL DEPARTMENT.—STATEMENT No. 4.

Showing in Detail the Maintenance of Canal Expenses for the year 1866.

	SUSQUEHANNA DIVISION.		LOWER JUNIATA DIVISION.		UPPER JUNIATA DIVISION.		WESTERN DIVISION.		TOTAL.		AMOUNT.
	Repairs.	Enlargem't.	Repairs.	Enlargem't.	Repairs.	Enlargem't.	Repairs.	Enlargem't.	Repairs.	Enlargem't.	
Tools.....	\$3,182 32	.....	\$774 36	.....	\$ 284 18	.....	.....	.....	\$4,240 86	.....	\$4,240 86
Materials.....	6,610 09	.....	91 19	.....	22 50	.....	.....	.....	6,723 78	.....	6,723 78
Repairs, Houses.....	1,607 42	\$3,068 28	1,117 71	\$3,712 38	263 20	465 83	.....	.....	2,988 33	\$7,306 47	10,294 80
" " Bridges.....	13,804 71	6,928 14	1,348 21	8,028 27	614 95	1,396 83	.....	.....	5,068 78	11,363 24	16,417 02
" " Locks.....	1,096 13	11,969 54	7,655 27	6,397 08	1,374 12	671 21	.....	.....	22,834 10	17,998 43	40,832 53
" " Aqueducts.....	1,367 41	6,919 17	8,063 17	489 07	594 00	4,124 44	.....	.....	4,753 30	11,532 68	16,286 98
" " Dams.....	280 63	.....	777 44	8,717 95	929 88	6,431 12	.....	.....	8,074 78	15,149 07	18,223 80
" " Culverts.....	306 42	2,249 08	2,298 35	8,023 26	.....	.....	.....	.....	2,578 98	6,272 34	7,851 32
" " Waste Wiers & Sluices.....	5,702 46	1,103 78	1,197 65	2,271 62	348 39	.....	.....	.....	1,861 46	3,375 30	5,226 76
" " Slope & Vertical Wall.....	16,864 11	6,470 05	146 22	2,030 04	16 28	.....	.....	.....	5,864 96	8,500 99	14,366 95
" " Canal Bed and Banks.....	375 84	3,809 58	879 91	5,617 90	1,861 92	.....	.....	.....	27,506 94	9,327 48	36,834 42
Watchmen.....	2,817 87	.....	294 46	.....	.....	.....	.....	.....	670 80	.....	670 80
Boats and Pinta, and Repairs of.....	172 89	.....	1,783 25	.....	108 71	.....	.....	.....	4,709 53	.....	4,709 53
Rents and Furniture.....	.....	.....	136 46	.....	50 75	.....	.....	.....	358 60	.....	358 60
Stationery, Printing, and Office Expenses.....	1,113 45	.....	703 55	.....	281 20	.....	.....	.....	2,098 20	.....	2,098 20
Taxes and Real Estate.....	1,268 02	.....	408 22	.....	576 58	.....	.....	.....	2,415 04	.....	2,415 04
Superintendence.....	3,126 88	.....	2,678 80	.....	1,448 39	.....	.....	.....	7,108 08	.....	7,108 08
Incidentals.....	1,498 88	.....	702 84	.....	692 02	.....	.....	.....	4,348 01	.....	4,348 01
Amounts.....	\$63,363 30	\$42,517 62	\$33,868 06	\$34,208 95	\$9,264 07	\$13,069 43	\$1,723 55	\$108,248 98	\$99,316 00	\$198,064 98	

ANNUAL REPORT, 1866. CANAL DEPARTMENT.—STATEMENT No. 5.
Showing the Operating Expenses in each year from 1857 to 1866, inclusive.

Y <small>EAR</small> .	Labor and Watchmen.	Lock-Keepers.	Collectors and Weigh-Masters.	Stationery, Printing, Office Expenses, Rents, Furniture and Superintendence.	Taxes, Drawbacks, and Incidentals.	T <small>OTALS</small> .
1857.—5 mos.	\$1,319 88	\$9,500 00	\$6,451 22	\$2,263 25	\$372 73	\$19,907 08
1858.....	2,439 66	15,200 61	8,302 43	3,172 00	340 67	29,455 37
1859.....	.....	11,048 56	7,764 27	4,048 60	12,485 88	35,347 81
1860.....	34 88	10,619 63	6,765 70	3,277 81	8,356 32	24,053 84
1861.....	1,183 25	9,552 46	6,772 98	4,241 89	5,256 78	26,007 36
1862.....	1,372 47	9,231 21	5,566 89	3,433 67	8,777 12	23,381 36
1863.....	1,796 26	9,766 74	5,792 48	3,618 12	87,987 84	58,961 39
1864.....	2,914 91	12,319 86	7,025 21	5,805 57	44,056 94	71,922 49
1865.....	1,335 40	8,707 92	4,784 99	4,504 66	8,872 38	28,205 35
1866.....	2,365 70	11,832 56	6,526 99	5,396 42	9,251 33	35,373 00
	\$14,761 91	\$107,779 55	\$64,753 11	\$39,561 99	\$125,757 99	\$352,614 55

ANNUAL REPORT, 1866. CANAL DEPARTMENT.—STATEMENT No. 6.

Showing the Maintenance Expenses in detail from 1857 to 1866, inclusive. Also the total Ordinary Repair Expenses separately from the Enlargement Expenses.

YEAR.	Aqueducts.	Bridges.	Boats, Flats, Tools and Warehouse.	Canal Bed and Banks.	Culverts.	Dams.	Houses.	Incidentals.	Locks.	Materials.	Slope and Vertical Wall.	Real Estate.	Waste Vessels and Sloices.	Stationery, Printing, Office Expenses, Rent, Furniture and Superintendence.
1857.....	\$2,000 00	9,500 00	1,850 00	10,000 00	200 00	18,183 02	550 00	.....	9,500 00	.....	500 00	200 00	300 00	4,500 00
1858.....	7,329 50	12,569 27	6,393 46	17,865 62	555 83	30,216 00	1,073 48	629 69	9,989 96	.....	866 61	333 83	804 67	8,112 14
1859.....	13,280 83	32,513 43	10,768 10	35,581 89	360 23	6,896 10	2,301 95	1,101 62	25,317 83	.....	1,065 62	325 34	1,602 29	7,183 97
1860.....	17,791 63	8,562 36	4,826 29	14,896 91	1,929 87	7,864 30	3,629 64	3,429 91	61,988 21	.....	7,350 77	629 60	1,363 51	5,908 89
1861.....	40,416 74	8,835 50	8,369 73	18,036 90	8,003 64	9,829 92	3,616 26	1,771 66	23,247 77	.....	3,176 09	2,331 39	8,728 58	4,230 40
1862.....	38,703 72	12,862 97	10,071 69	16,747 42	1,131 09	32,713 38	7,028 27	3,819 01	100,348 84	.....	2,432 97	1,205 25	4,850 38	6,450 59
1863.....	52,749 63	22,198 71	14,412 54	21,806 14	695 75	9,882 49	8,117 13	2,462 90	157,666 76	.....	1,025 08	908 45	2,696 28	8,754 23
1864.....	42,263 54	16,034 25	25,483 31	30,970 63	2,143 90	4,988 13	8,774 49	4,404 20	73,183 94	.....	4,606 89	3,750 19	4,269 37	9,586 53
1865.....	14,970 30	17,663 66	11,117 71	87,924 86	2,142 46	15,552 81	9,764 42	20,270 67	38,909 09	.....	16,516 93	1,086 20	4,683 68	10,285 65
1866.....	16,486 98	17,117 02	9,970 69	87,355 48	8,151 32	18,623 80	10,644 80	4,348 01	41,632 53	3,284 29	14,716 95	2,415 04	6,476 76	9,624 88
TOTALS.....	\$216,981 87	157,947 27	97,263 52	291,184 85	20,214 09	154,749 92	55,500 38	41,737 57	527,774 45	3,284 29	52,886 91	13,065 29	29,775 47	74,646 28
Ordinary Repair Expenses.....	26,299 96	19,529 55	63,383 36	193,271 08	5,184 91	29,050 14	12,199 30	25,270 67	49,851 29	3,284 29	22,884 68	6,870 28	6,570 48	41,662 72
Enlargement.....	220,681 92	138,417 62	33,900 13	107,913 77	16,029 18	125,699 78	43,301 08	16,466 90	477,923 16	.....	30,002 28	6,415 00	23,104 99	32,983 56
TOTALS.....	\$216,981 87	157,947 27	97,263 52	291,184 85	20,214 09	154,749 92	55,500 38	41,737 57	527,774 45	3,284 29	52,886 91	13,065 29	29,775 47	74,646 28

ANNUAL REPORT, 1866. CANAL DEPARTMENT.—STATEMENT No. 7.

Showing the Expenses, Receipts, Profit or Loss on each Division, from August 1st, 1857, to December 31st, 1866.

	Miles.	EXPENSES.				TOTAL EXPENSES.	TOTAL RECEIPTS.	PROFIT.	LOSS.
		Repairs.	Enlargement.	Total Maintenance.	Operating.				
Earnings and Expenses on all Divisions in 1857, from August 1st.....		\$23,511 10	\$29,771 92	\$53,283 02	\$19,907 08	\$73,190 10	\$92,433 60	\$19,243 40	.....
Susquehanna Division.....	46	822,175 46	606,333 19	828,507 65	182,878 89	1,011,386 54	1,683,044 42	670,657 88	.....
Lower Juniata Division.....	90	169,632 57	299,179 80	468,812 37	82,961 18	551,773 55	204,085 61	.....	\$284,618 04
Upper Juniata Division.....	37	61,907 68	237,106 47	299,014 15	28,173 83	327,188 98	33,656 90	.....	295,530 08
Upper Western Division.....	80	13,900 61	3,571 72	17,472 33	6,008 16	23,480 49	6,550 88	.....	16,929 50
Lower Western Division.....	73	67,734 84	65,378 30	133,113 14	62,686 42	195,800 06	78,744 86	.....	116,954 20
Incidental Receipts.....		.....	.....	.....	.....	.....	88,177 71	88,177 71	.....
Totals.....	276	\$655,791 76	\$1,111,240 40	\$1,767,032 16	\$362,614 55	\$2,119,646 71	\$2,180,693 88	\$73,078 99	\$712,618 82
Total Profit since August 1, 1857.....									
								\$61,047 17	

Statement No. 8.—Giving the whole Number of Structures on the Canal, the number of each kind rebuilt and now in good condition, and the number that have not been rebuilt.

	SUSQUEHANNA DIVISION. Length, 48 mi., 12 ft. Lockage.				LOWER JUMATA DIVISION. Length, 90 miles, 260 ft. Lockage.				UPPER JUMATA DIVISION. Length, 37 mi., 300 ft. Lockage.				Whole Number of Structures of each kind on the Canal.
	Whole Number of Structures.	Number Rebuilt and in good condition.	Number not yet rebuilt.	Whole Number of Structures.	Number Rebuilt and in good condition.	Number not yet rebuilt.	Whole Number of Structures.	Number Rebuilt and in good condition.	Number not yet rebuilt.	Whole Number of Structures.	Number Rebuilt and in good condition.	Number not yet rebuilt.	
Aqueducts over Rivers.....	1	1	.....	3	3	.....	4	3	.....	.....	.....	.....	8
Aqueducts over Creeks.....	8	6	3	17	6	11	.....	.....	.....	.....	.....	.....	23
River Bridges.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Towing-Path River Bridges.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
Road and Farm Bridges.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	215
Towing-Path Bridges.....	86	71	15	91	75	18	.....	88	32	.....	6	.....	26
Dams on Rivers.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
Dams on Creeks.....	2	2	.....	6	4	1	.....	13	11	.....	2	.....	1
Calverts.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Lock-Houses.....	22	15	7	66	35	20	.....	.....	.....	.....	.....	.....	79
Collectors' Houses and Offices.....	20	14	6	29	13	16	.....	23	6	.....	23	.....	77
Foremen's Houses.....	3	2	1	2	2	.....	.....	.....	.....	.....	.....	.....	6
Tool Houses.....	6	6	.....	3	3	.....	.....	.....	.....	.....	.....	.....	9
Watch Houses.....	2	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	8
Ferry Houses.....	13	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
Superior's Offices.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Machine Shops.....	1	1	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....
Carpenter Shops.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Smith Shops.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Overflows.....	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Waste-Ways.....	9	9	.....	9	9	.....	.....	9	.....	.....	.....	.....	30
Dry Docks.....	1	1	.....	29	26	8	.....	14	14	.....	.....	.....	67
Stables.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Reservoirs.....	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
Weigh Locks.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stop Locks.....	1	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	1
Lift and Guard Locks, Single Chamber.....	14	7	7	1	1	.....	.....	.....	.....	.....	.....	.....	1
" " Double Chamber.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Locks Enlarged to Susquehanna Division size.....	9	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
Locks not enlarged.....	.....	.....	.....	9	9	.....	.....	.....	.....	.....	.....	.....	9
Water-Ways around Locks.....	10	19	.....	84	20	14	.....	88	87	.....	1	.....	17
	232	191	41	823	219	104	225	174	51	740			73

REPORT OF THE AUDITOR.

ACCOUNTING DEPARTMENT, PENNA. R. R. Co.,
Philadelphia, January 1, 1867.

To the President and Directors of the
Pennsylvania Railroad Company.

GENTLEMEN:—I herewith submit Statements containing statistical information furnished from the records in this Department. They exhibit in detail the operations of the Transportation Department of the Pennsylvania Railroad, of the Philadelphia and Erie Railroad, and of the Canal owned by this Company, for the year ending December 31, 1866.

Very respectfully,

SAMUEL G. LEWIS,
Auditor.

**MEMORANDUM EXHIBIT OF EARNINGS AND EXPENSES, ETC., OF
THE ROAD FOR 1866.**

Total Earnings for 1866 :

From Transportation of Freights and Tolls	
from Individual Cars, - - -	\$11,709,293 59
“ First Class Passeng's, (including U.S. Tax)	3,245,800 06
“ Emigrants, (including U. S. Tax) - -	139,721 25
“ Adams' Express, - - - -	374,369 22
“ Carrying U. S. Mails, - - - -	82,730 00
“ “ Gov't Troops, (includ'g U. S. Tax)	560,945 44
“ Rent from Workmen's and other Houses,	59,720 12
“ Sundry Sources, - - - -	411,303 16
	<u>\$16,583,882 84</u>

The Total Expenses are as follows, viz :

Motive Power,	
Ordinary, - - -	\$2,919,122 47
New Locomotives, -	671,758 80
New Tools and Machinery,	85,225 77
New Engine Houses, &c.,	121,724 59
	<u>\$3,797,831 63</u>
Conducting Transportation,	
Ordinary, - - -	3,492,008 80
New Build'gs & Extensions,	154,743 42
	<u>3,646,752 22</u>
Maintenance of Way,	
Ordinary, - - -	2,845,465 58
Extension of Second Track	
and Siding, - - -	250,965 09
	<u>3,096,430 67</u>
Maintenance of Cars,	
Ordinary, - - -	*1,070,912 77
New Freight Cars, -	693,766 37
New Passenger Cars,	196,363 06
	<u>1,961,042 20</u>
General Expenses,	
Ordinary, - - - - -	288,852 55
	<u>12,790,909 27</u>
Making Total Expenses, - -	
Net Earnings to balance, - -	3,792,973 57
	<u>\$16,583,882 84</u>

* This includes \$147,414 68 expended in repairs of Cars in use on the Philadelphia and Erie Railroad.

And showing the following Transportation Balance Sheet :

Dr.

To amount of Stock on hand, Jan'y 1, 1866,	\$1,462,555 44
Do. Bills during 1866, - -	10,625,193 35
Do. Pay Rolls during 1866, -	5,140,490 73
	<u>\$17,228,239 52</u>

Cr.

By amount of Expenditures in the following Departments, viz :

Motive Power, - - - - -	\$3,797,831 63
Conducting Transportation, - - -	3,646,752 22
Maintenance of Way, - - - -	3,096,430 67
Maintenance of Cars, - - - -	1,961,042 20
General Expenses, - - - - -	288,852 55
Cost of Construction and Equipment of Road,	2,561,916 90
Individuals and Companies, (Gen'l Supt's Acc't)	497,009 25
Road and Shop Stock on hand, Jan'y 1, 1867,	1,378,404 10
	<u>\$17,228,239 52</u>

The Receipts and Expenditures of the Transportation Department of the Philadelphia and Erie Railroad, by the Pennsylvania Railroad Company, (Lessee,) for the year 1866, are as follows :

RECEIPTS.

From Freights and Tolls on Individual Cars,	\$1,744,299 13
" Passengers, - - - - -	686,621 78
" Expresses, - - - - -	26,941 43
" United States Mails, - - - -	18,501 96
" Government Troops, - - - -	48,103 13
" Sundry Sources, - - - - -	16,584 36
Total Receipts, - - - - -	<u>2,541,051 79</u>
Excess of Expenses to balance,	278,661 54
	<u>\$2,819,713 33</u>

EXPENDITURES.

Conducting Transportation, (including 30 per cent. to Philadelphia and Erie Railroad Company, - -	\$1,500,999 28
Motive Power, - - - - -	682,947 62
Maintenance of Way, - - - - -	624,245 02
Maintenance of Cars, - - - - -	11,521 41

Total Expenditures, -	<u>\$2,819,713 33</u>
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The details of the above show the Earnings and Expenses due the Philadelphia and Erie Railroad for 1866, as follows, viz:

Total Receipts, - - - - -	\$2,541,051 79
Less Drawbacks and Overcharges refunded,	28,902 29
	<u>\$2,512,149 50</u>

TOTAL EXPENDITURES.

Conducting Transportation,	\$1,500,999 28
Less 30 per cent. to Philadelphia and Erie Railroad, \$732,738 80	
Less Drawbacks and Overcharges,	28,902 29
	<u>761,641 09</u>
	\$739,358 19
Motive Power, - - - - -	682,947 62
Maintenance of Cars, - - - - -	11,521 41
Maintenance of Way, - - - - -	624,245 02
Working Expenses, - - -	<u>\$2,058,072 24</u>

The Balance Sheet for the Philadelphia and Erie Railroad for 1866, is as follows, viz :

DR.

To amount of Stock on hand January 1, 1866,	\$481,502 23
Do. Bills during 1866, - -	1,938,048 80
Do. Pay Rolls during 1866, - -	1,424,819 32
	<u>\$3,844,370 35</u>

CR.

By amount of Expenditures in the following Departments, viz :	
Conducting Transportation, - - -	\$1,500,999'28
Motive Power, - - - - -	682,947 62
Maintenance of Cars, - - - -	11,521 41
Maintenance of Way, - - - -	624,245 02
Road and Shop Stock on hand January 1, 1867,	449,224 41
Individuals and Companies, Gen'l Superintendent's Account, - - - - -	575,432 61
	<u>\$3,844,370 35</u>

Earnings and Expenses of the Main Line of Pennsylvania Canal
for the year 1866, viz :

To amount of Tolls on Lading, - - -	\$242,609 48
Do do Boats, - - -	25,729 48
Do do at Outlet Lock, Columbia,	12,853 00
Do do do Middletown,	1,221 63
Do Bridge Tolls and Ferriages, -	5,443 15
Do from Miscellaneous Sources, -	10,010 42
	<u>\$297,867 16</u>

By amount of Expenses in			
Maintenance of Canal Department,	-	-	\$198,064 98
Canal Transportation Department,	-	-	35,373 00
			<hr/>
Total Expenses,	-	-	233,437 98
Net Earnings to balance,			64,429 18
			<hr/>
			<u>\$297,867 16</u>

The amount charged to Extraordinary Repairs and Enlargement of the Canal during the year 1866, was \$89,816 00.

CANAL STATEMENT No. 1.

Showing in Detail the Expenses of Canal Department for the Year ending December 31, 1866.

HEADS OF ACCOUNTS.	MAINTENANCE OF CANAL.		Canal Transportation.	TOTALS.
	Repairs.	Enlargem't.		
Aqueducts, repairs of.....	\$4 753 30	\$11,532 68		\$16,286 98
Boats and Flats, and repairs of.....	4,709 53			4,709 53
Bridges, repairs of.....	5,063 78	11,353 24		16,417 02
Canal Bed and Banks, repairs of.....	27,506 94	9,327 48		36,834 42
Collectors.....			5,802 62	5,802 62
Culverts, repairs of.....	2,578 98	5,272 84		7,851 32
Dams, repairs of.....	3,074 73	15,149 07		18,223 80
Houses, repairs of.....	2,988 83	7,306 47		10,294 80
Incidentals.....	4,348 01		1 029 69	5,277 70
Labor.....			2,220 20	2,220 20
Lock-Keepers.....			11,632 56	11,632 56
Locks, repairs of.....	22,834 10	17,098 43		40,832 53
Materials.....	5,723 78			5,723 78
Rents and Furniture.....	858 60		106 37	464 97
Slope and Vertical Walls, repairs of.....	5,864 96	8,500 99		14,365 95
Stationery, Printing, and Office Expenses..	2,098 20		1,986 21	4,084 41
Superintendence.....	7,103 08		3,303 84	10,471 92
Taxes and Real Estate.....	2,415 04			2,415 04
Tools.....	4,240 86			4,240 86
Waste Weirs and Sluices, repairs of.....	1,851 46	3,375 30		5,226 76
Watchmen.....	670 30		145 50	815 80
Weigh-Masters.....			724 87	724 87
Drawbacks and Overcharges.....			827 50	827 50
Tax, United States Excise.....			3,194 61	3,194 61
" State Tonnage.....			4,299 53	4,299 53
Totals.....	\$108,248 98	\$89,816 00	\$35,373 00	
		108,248 98		
		\$198,064 98	\$35,373 00	\$233,437 98

CANAL STATEMENT No. 2.

Showing in Detail the Earnings of Canal Department for the Year ending December 31, 1866.

FROM COLLECTOR'S OFFICE AT	AMOUNTS.
Columbia.....	\$25,604 27
Middletown.....	14,037 13
" Outlet Lock.....	1,221 63
Harrisburg.....	207,849 58
Clark's Ferry Bridge.....	3,970 48
Junction.....	19,200 42
Lewistown.....	2,373 73
Huntingdon.....	9,727 74
Holtzclaysburg.....	3,871 76
Sundry Sources.....	10,010 42
Total.....	\$297,867 16

ANNUAL REPORT, 1866. ACCOUNTING DEPARTMENT—STATEMENT No. 1.

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

1866.	Dolla. Cts.	Dolla. Cts.	1866. BY AMOUNT OF EXPENSES IN	PASSENGER.	FREIGHT.	TOTALS.
TO AMOUNT OF EARNINGS FROM						
Freight at Stations including Tolls on Individual Cars.....		11,709,293 59	Conducting Transportation, Passenger.....	\$983,898 28	\$2,508,110 52	\$3,492,008 80
			" " Freight.....			154,743 42
			" " New Buildings and Extensions.....	46,423 02	108,320 40	
First Class Passengers.....	3,245,800 06		Motive Power, Passenger.....	632,668 76		
Emigrant Passengers.....	139,721 25		" " Freight.....		2,286,453 71	2,919,122 47
Express.....	374,369 22		" " New Locomotives, \$671,758.80; Tools & Machinery, 85,228.77	227,095 87	523,889 20	756,984 57
Carrying United States Mails.....	82,730 00		" " Extension of Machine Shops and Engine Houses.....	36,617 38	85,207 21	121,724 59
Government Troops.....	580,945 44		Maintenance of Cars, Passenger.....	309,852 91		
		4,403,665 97	" " Freight.....		761,059 86	1,070,912 77
Rents.....	59,720 12		" " New Cars.....	196,363 06	693,766 37	890,129 43
			Maintenance of Way, Passenger.....	853,639 62		
			" " Freight.....		1,991,825 96	2,845,466 58
			" " Extension of Second Track and Sliding....	76,289 63	176,675 56	250,965 09
			General Expenses, Passenger.....	86,666 77		
			" " Freight.....		202,196 78	293,862 55
Sundry Sources.....	411,303 16	471,023 28	By amount of net proceeds to balance.....	3,448,408 70	9,342,506 87	12,790,909 27
		16,683,882 84				8,762,973 57
						\$16,683,882 84

STATEMENT No. 2.—EARNINGS AND EXPENSES FOR 1866.
Condensed Exhibit of Earnings and Expenses, together with Net Earnings for each month during the year.

MONTHS.	GROSS EARNINGS.	EXPENSES.	NET EARNINGS.
January.....	\$1,170,001 80	\$1,066,957 12	\$108,044 68
February.....	1,245,641 14	1,041,981 98	208,709 16
March.....	1,281,190 36	1,184,552 68	146,687 68
April.....	1,285,644 10	1,058,864 57	226,779 58
May.....	1,401,884 55	970,701 06	431,188 49
June.....	1,435,676 59	1,081,758 80	358,917 79
July.....	1,344,156 48	977,086 28	367,120 20
August.....	1,495,475 67	956,425 02	539,050 65
September.....	1,613,143 33	1,190,421 76	422,721 57
October.....	1,586,362 57	1,037,329 79	546,032 78
November.....	1,430,184 89	1,181,087 28	299,147 61
December.....	1,297,521 86	1,143,892 98	158,628 48
Totals.....	\$16,583,882 84	\$12,790,909 27	\$8,792,973 57

STATEMENT No. 3.
GENERAL STATEMENT OF EARNINGS FOR THE YEAR 1866.

CLASS.	JANUARY.	FEBRUARY.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPTEMBER.	OCTOBER.	NOVEMBER.	DECEMBER.	TOTALS.
<i>Freight Earnings.</i>													
Freight at Stations, Includ- ing Freight on Individual Cars,	\$912,054.96	\$685,681.70	\$884,116.62	\$539,007.60	\$1,027,158.22	\$1,066,460.62	\$942,733.49	\$1,123,210.87	\$1,119,923.34	\$1,162,898.78	\$1,092,472.29	\$904,098.10	\$11,709,293.59
Total Freight Earnings, .	\$842,054.96	\$685,681.70	\$884,116.62	\$539,007.60	\$1,027,158.22	\$1,066,460.62	\$942,733.49	\$1,123,210.87	\$1,119,923.34	\$1,162,898.78	\$1,092,472.29	\$904,098.10	\$11,709,293.59
<i>Passenger Earnings.</i>													
First Class Passengers, .	\$223,913.21	\$210,621.92	\$299,949.88	\$301,749.69	\$273,940.65	\$260,331.74	\$266,786.72	\$302,304.53	\$320,404.55	\$308,373.46	\$277,646.13	\$249,745.55	\$3,345,900.06
Emigrant Passengers, .	7,039.03	5,687.45	9,032.65	13,363.95	19,410.73	17,318.00	15,004.23	11,264.84	11,047.32	13,646.18	11,246.10	6,725.67	139,721.25
Adams & Co's. Express, .	37,510.68	55,183.85	43,427.28	31,984.32	80,973.28	24,061.53	17,970.86	18,066.99	19,655.85	27,877.07	14,860.00	48,877.55	374,869.22
United States Mails, . .	6,984.18	6,891.15	6,891.16	6,891.15	6,891.15	6,894.28	6,884.15	6,894.15	6,894.15	6,894.15	6,894.15	6,894.15	82,700.40
Government Troops, . .	2,563.30	24,841.91	14,762.14	23,667.35	10,116.63	33,383.19	77,466.07	1,350.83	57,133.15	17,344.35	55,809.21	46,384.20	666,946.44
Total Passenger Earnings, .	\$278,390.37	\$327,139.29	\$374,216.21	\$350,884.69	\$441,345.47	\$334,200.80	\$394,062.02	\$330,901.36	\$415,137.36	\$374,067.16	\$394,464.60	\$369,786.64	\$4,403,663.97
<i>Miscellaneous Earnings.</i>													
Rents,	\$7,122.86	\$2,712.73	\$3,633.03	\$7,333.79	\$4,706.78	\$3,829.66	\$5,918.39	\$4,616.73	\$2,878.20	\$7,592.46	\$3,078.11	\$5,703.49	\$59,780.13
Sundry Sources, . . .	42,633.61	30,097.43	19,019.50	38,338.03	29,674.04	\$1,183.61	11,442.57	37,746.71	76,204.43	88,984.17	40,169.89	37,967.13	411,306.16
Total Miscellaneous Earnings, .	\$49,756.47	\$32,810.16	\$22,652.53	\$45,751.81	\$33,380.82	\$35,013.17	\$17,360.96	\$32,363.44	\$78,092.63	\$94,576.63	\$43,248.00	\$83,659.62	\$671,026.29
Total Earnings from all sources, .	\$1,170,001.80	\$1,245,641.14	\$1,281,190.36	\$1,285,644.10	\$1,401,884.55	\$1,355,676.59	\$1,344,156.43	\$1,495,475.67	\$1,613,143.33	\$1,668,362.67	\$1,430,184.99	\$1,297,521.26	\$16,608,062.84

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

CONDUCTING TRANSPORTATION, MOTIVE POWER, MAINTENANCE OF CARS, MAINTENANCE OF WAY, AND GENERAL EXPENSES FOR 1886.

1886.	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, -	875,497 43	\$254,235 22	\$329,737 64	869,239 53	\$250,332 14	\$299,571 99	\$6,183 52	\$97,058 90	\$103,197 42	\$93,221 92	\$217,517 83	\$310,739 74	\$7,116 10	16,604 23	\$23,720 33	\$1,066,357 13
	February, -	84,284 05	190,987 89	275,252 44	56,305 84	190,331 74	246,537 58	21,045 21	64,125 19	85,173 40	72,439 56	169,002 29	241,431 35	3,697 54	8,627 11	12,324 45	\$80,719 72
	March, -	92,777 42	214,567 60	\$10,644 92	89,718 93	194,895 49	247,174 42	27,027 78	65,421 49	92,452 27	81,965 13	138,585 29	276,550 42	7,955 51	16,562 88	24,518 39	\$93,340 43
	April, -	75,191 72	193,792 04	268,983 76	49,739 07	175,754 05	225,493 72	30,384 18	62,845 50	93,229 68	82,371 33	192,199 74	274,571 07	4,612 25	10,761 95	15,374 06	\$77,653 31
	May, -	85,078 65	192,018 61	274,097 16	53,655 55	165,138 86	218,794 41	22,945 78	45,841 57	72,787 35	63,294 66	147,687 53	210,982 24	3,851 29	8,986 36	12,837 64	\$79,468 80
	June, -	95,133 33	253,358 80	348,570 13	49,719 12	194,796 77	244,515 89	37,244 81	59,640 74	96,885 55	58,242 71	135,399 60	194,142 31	4,999 81	11,432 68	16,432 66	\$90,546 54
	July, -	89,676 61	214,685 24	304,360 85	43,957 27	177,539 53	221,497 05	35,097 44	52,178 57	87,271 01	51,719 86	120,679 90	172,399 97	3,088 54	7,206 60	10,295 14	\$76,824 02
	August, -	71,275 35	186,797 01	260,072 36	50,362 39	168,521 11	223,883 50	30,789 99	55,073 06	75,862 07	57,615 93	134,487 02	192,053 15	3,102 61	7,239 17	10,341 68	\$75,212 76
	September, -	70,659 42	191,793 34	262,452 66	45,669 94	169,465 92	215,135 86	22,545 91	60,311 86	82,855 59	75,214 92	175,501 60	250,716 42	5,048 01	11,778 70	16,826 71	\$77,997 24
	October, -	76,516 08	190,597 86	275,114 56	51,936 27	183,831 55	240,748 82	22,192 37	64,377 31	94,069 68	70,740 63	165,061 62	233,802 80	3,115 25	7,268 99	10,384 27	\$86,117 53
	November, -	82,458 33	211,312 61	293,769 94	50,235 55	186,410 87	236,649 42	24,746 87	66,633 20	90,380 07	76,907 18	179,450 18	256,357 86	21,796 67	50,835 57	72,632 24	\$49,825 03
	December, -	86,319 40	202,566 86	288,886 26	59,367 05	229,534 76	288,111 81	31,894 05	62,054 78	93,748 78	68,915 62	160,803 13	229,718 75	19,382 49	42,892 47	62,274 96	\$95,680 68
	Totals, -	883,589 28	2,508,110 52	3,492,009 80	632,666 76	2,286,453 71	2,919,125 47	309,832 91	761,059 86	1,070,912 77	833,639 62	1,991,826 96	2,345,465 63	86,656 77	202,196 78	288,852 55	10,616,362 17
	Am'ts transferred to expenses, -	48,423 02	108,320 40	154,743 42	263,612 75	615,096 41	878,700 16	196,363 06	693,768 37	890,129 43	75,239 53	175,675 56	250,905 09				2,174,547 10
	Totals, -	1,030,221 30	2,616,430 92	3,646,752 22	896,281 51	2,901,550 12	3,797,825 63	506,215 97	1,454,828 23	1,961,042 20	928,929 15	2,167,501 52	2,596,430 67	86,655 77	202,196 78	288,852 55	12,790,909 27

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ACCOUNTING DEPARTMENT—STATEMENT No. 5

Expenses of the Transportation Department, Pennsylvania Railroad Company, for the year ending December 31st, 1866.

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	\$8,213 90	\$755 71							\$1,767 79	\$4,101 52	\$14,828 92
Agents.....	24,234 16	42,289 96									66,524 12
Attendants.....									1,640 70	3,828 30	5,469 00
Baggage Masters.....	47,244 97										47,244 97
Ballast.....											110,678 72
Brakemen.....	54,907 82	405,827 50									460,735 32
Bridges, repairs of.....											354,325 18
Car Furniture and Fixtures.....	25,507 86	40,111 46									66,679 32
Car Shops and Sheds, repairs of.....											27,791 49
Car Service.....											35,064 68
Cars, cleaning and inspecting.....	4,434 33	30,630 25			\$8,337 45	\$10,454 04					112,195 46
Cars, repairs of Ballast and Wood.....	62,187 09	50,008 31			2,030 31	4,784 05					6,834 36
Cars, repairs of Freight.....											724,484 96
Cars, repairs of Passenger and Baggage.....					294,177 97	724,484 96					294,177 97
Cars, Road and Hand.....											8,251 34
Chairs.....											98,681 00
Clerks.....	29,131 25	138,806 58									248,918 65
Coal.....											541,028 34
Conductors.....	55,890 37	145,098 09									199,596 06
Cotton Waste.....											36,845 42
Cross Ties.....											243,091 02
Dispatchers.....	18,345 74	16,410 66									77,702 40
Drawbacks and Overcharges.....	2,369 25	184,758 77									187,028 02
Engine Drivers and Firemen.....											443,393 08
Engine Houses, Machine Shop, and Turn-Tables, repairs of.....											184,562 02
Expenses at Stations, except Labor.....	10,513 63	14,079 83									24,593 36
Expenses of Grain Elevator.....											4,228 48
Expenses on Property.....											9,569 40
Expenses on Tools.....	122,638 31	82,990 45									205,628 76
Foremen and Watch Houses, repairs of.....											50,029 67
Frogs.....											35,440 66

Fuel and Light.....	4,437 46	2,041 08							483 23	1,127 62	1,610 75
Fuel at Stations.....	9,503 63	241 80									9,745 43
Fuel for Cars.....											13,003 81
Fuel for Stoves, at Engine Houses and Shops											290,272 13
Incidentals.....	50,307 80	89,043 01	3,760 89	8,775 55	8,20 27	7,054 27	10,459 87	61,836 72			917,098 60
Iron Rails.....											184,274 44
Labor at Stations.....	21,217 60	163,067 70	63,625 16	148,225 36							211,760 64
Laborers.....											24,067 68
Light at Stations.....	13,512 30	11,155 28									10,129 03
Light for Cars.....	6,773 49	3,365 64	8,485 65	19,790 65							28,285 20
Locomotive Furniture and Fixtures.....											897,806 75
Locomotives, repairs of.....			176,464 80	721,341 25							144,624 11
Loss and Damage.....											38,113 03
Loss from Injuries to Individuals.....	38,113 03	144,624 11									6,145 60
Mail Expenses.....	6,145 60										12,224 98
Office Expenses.....											92,775 97
Oil.....											100,675 20
Oil, Tallow, Sponges, Wool, &c.....	20,143 13	69,759 87	16,143 02	76,632 96							7,327 07
Power on Engines.....											768 44
Real Estate in Philadelphia.....											182,363 54
Road Bed, repairs of.....											12,956 86
Road Bed, repairs of "Material".....											65,200 00
Salaries of Presidents and other General Officers											16,182 12
Spike and Log, including.....											34,250 83
Stationery and Printing.....	20,977 13	46,096 34	2,932 28	5,340 65							89,896 85
Stations, repairs of.....	65,034 30	100,706 72									196,641 02
Superintendence and Supervisors.....	7,767 83	18,126 71									19,222 43
Switches.....											43,624 21
Switchmen.....			13,087 27	30,536 94							45,282 64
Tallow.....			7,674 14	37,908 50							32,490 40
Tax on Depots.....	8,938 83	23,551 67									27,188 98
Tax, United States Excise.....	107,051 44	155,923 64									71,716 83
Tax, Township (State).....		71,716 83									10,878 24
Taxes on Engine Houses and Shops.....			3,262 97	7,615 27							20,484 13
Taxes on Real Estate or Road.....											85,202 53
Teaming.....	6,881 60	78,420 88									77,110 26
Telegraph Expenses.....	23,716 20	53,394 00									147,500 91
Telegraph, repairs of.....											136,968 38
Tools and Machinery, repairs of.....			20,432 46	61,675 75	4,442 66						77,221 20
Tolls, Bald Eagle Valley R. R.....	29,600 64	47,620 36									7,382 10
Tolls, E. Bradywine and Waynesburg R. R.....	3,392 50	4,079 69									7,870 87
Tolls, E. Bradywine and Waynesburg R. R.....	2,877 96	4,992 91									6,870 45
Tolls, Millin and Centre County Railway.....	3,385 20	3,485 16									
Amounts carried forward.....											

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.	
Amounts brought forward.....		7,652 30									7,652 30
Tolls, Philadelphia City Railroad.....		21,012 81									21,012 81
Tolls, Philadelphia and Wilmington A. & D. R.		19,849 02									19,849 02
Tolls, Tyrone and Carlisle R. R.		18,114 82									18,114 82
Tolls, Ches. and Phila. R. R. (La Media).....	4,347 84	15,959 88									20,307 72
Tolls, Western Pennsylvania R. R.	2,301 67	15,722 85									18,024 52
Track, Labor repairing.....	7,457 60	24,707 04									32,164 64
Watchmen.....			4,392 64	10,349 40			143,341 30	534,463 04			477,804 84
Water, Wood, and Coal Stations, repairs of.....			25,900 23	60,642 84			40,220 22	86,870 63			148,742 88
Tools, Station, and other expenses of.....			8,137 66	18,988 30							27,125 96
Wood and Labor preparing.....			22,148 69	90,783 65							112,932 34
Tolls, Erie Railroad.....	28,438 39	75,484 24									104,285 63
Tolls, Junction Railroad.....		10,280 80									10,280 80
Tolls, Pittsburgh, Columbus and Cin. Line.....		48,419 88									48,419 88
Extension of Stations, &c.....	46,423 02	108,320 40									154,743 42
Extension of Double Track and Sidings.....							75,289 63	175,676 66			250,965 09
Extension of Machine Shops & Eng. Houses.....			36,517 35	85,207 21							121,724 56
New Locomotives.....			201,527 64	470,231 16							671,758 80
New Tools and Machinery.....			25,567 73	59,688 04							85,255 77
New Freight Cars.....											663,766 87
New Passenger Cars.....							196,803 06	693,766 37			196,803 06
Totals.....	1,030,321 30	\$2,616,430 02	896,281 51	2,901,550 12	506,215 97	1,454,826 23	928,929 16	2,187,501 52	86,665 77	202,106 78	\$12,790,909 37

RECAPITULATION.

	PASSENGER.	FREIGHT.	TOTALS.
Conducting Transportation.....	\$1,030,321 30	\$2,616,430 02	\$3,646,752 22
Motive Power.....	896,281 51	2,901,550 12	3,797,831 63
Maintenance of Cars.....	506,215 97	1,454,826 23	1,961,042 20
Maintenance of Way.....	928,929 16	2,187,501 52	3,116,430 67
General Expenses.....	86,665 77	202,106 78	288,772 55
Total.....	\$3,448,403 70	\$9,342,506 57	\$12,790,909 37

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STATEMENT No. 6.

EXPENSES OF ENGINES, PHILADELPHIA DIVISION.

AVERAGE COST PER 100 MILES.				
CLASS.	Repairs.	Fuel.	Stores.	TOTAL.
Passenger Engines.....	7.38	5.50	1.84	14.67
Distributing Engines.....	11.91	6.35	2.31	20.57
Freight Engines.....	11.88	8.84	2.31	23.03

STATEMENT No. 7.

EXPENSES OF ENGINES, MIDDLE DIVISION.

AVERAGE COST PER 100 MILES.				
CLASS.	Repairs.	Fuel.	Stores.	TOTAL.
Passenger Engines.....	11.42	5.62	1.56	18.60
Distributing Engines.....	6.37	10.00	1.96	18.33
Freight Engines.....	10.97	9.81	2.12	22.90

STATEMENT No. 7½.

EXPENSES OF ENGINES, PITTSBURGH DIVISION.

AVERAGE COST PER 100 MILES.				
CLASS.	Repairs.	Fuel.	Stores.	TOTAL.
Passenger Engines.....	10.24	6.44	2.01	18.69
Distributing Engines.....	10.42	7.91	2.75	21.08
Freight Engines.....	16.31	10.90	3.20	30.41

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ACCOUNTING DEPARTMENT.—STATEMENTS Nos. 8 and 11.

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

1866.	Individual Passengers.	Miles Traveled.	Average Distance.	Equivalent Through Passengers.
First Class Passengers....	2,008,595	96,948,773	.....	273,095
Emigrant Passengers.....	80,895	10,198,770	.....	28,729
Coupon Passengers	515,846	4,562,153	12,851
Troops.....	118,732	27,375,854	77,115
	2,673,568	139,085,550	52	391,790

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ACCOUNTING DEPARTMENT.—STATEMENT No. 12.

Freight Earnings of the Pennsylvania Railroad, for the year 1866.

	TOTALS.
Philadelphia to Pittsburgh.....	\$1,489,160 21
Philadelphia to Way Stations.....	529,149 81
Way Stations to Philadelphia.....	3,297,208 65
Pittsburgh to Philadelphia.....	2,260,638 04
Pittsburgh to Baltimore.....	278,904 04
Pittsburgh to Way Stations.....	879,861 78
Way Stations to Pittsburgh.....	926,745 30
Baltimore to Pittsburgh.....	160,919 53
Local—Eastward.....	1,539,999 85
Local—Westward.....	346,706 38
Tot Freight Earnings.....	\$11,709,293 59

Information from Record Books, Accounting Department.

Tons of through freight, Eastward	316,534	Mileage of through freight, Eastward	113,319,390
Tons of through freight, Westward.....	164,250	Mileage of through freight, Westward.....	58,801,819
Tons of local freight, Eastward.....	1,841,304	Mileage of local freight, Eastward.....	276,026,740
Tons of local freight, Westward.....	864,271	Mileage of local freight, Westward.....	64,954,232
Total Tons Moved	3,186,359	Total Mileage	513,102,181

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ACCOUNTING DEPARTMENT—STATEMENT No. 15.

Through Freight and Union Line Combined, for the year 1866.

LIST OF ARTICLES.	PITTSBURGH	PHILADELPHIA
	TO PHILADELPHIA.	TO PITTSBURGH.
Agricultural Implements.....	448,719	282,047
Agricultural Productions.....	7,746,846	6,131,555
Bark and Sumac.....	13,872	64,051
Boots, Shoes, Hats, &c.....	72,882	7,242,458
Books and Stationery.....	376,021	2,916,709
Butter and Eggs.....	17,569,900	
Brown Sheetings and Bagging.....	36,027	4,761,553
Carriages.....	162,600	775,372
Cedarware.....	81,298	888,468
Confectionery and Foreign Fruits.....	69,163	3,558,044
Coal Oil.....	89,208,503	
Coal, Anthracite.....		75,410
Coal, Bituminous.....		
Coffee.....	8,708	6,707,101
Cotton.....	20,299,762	242,886
Copper, Tin and Lead.....	501,531	6,340,125
Dry Goods.....	3,348,576	77,740,077
Drugs, Medicines and Dye Stuffs.....	3,010,871	18,249,217
Earthenware.....	34,402	2,324,809
Empty Barrels.....	62,700	2,158,095
Fresh Meats, Poultry and Fish.....	1,052,387	
Flour.....	107,921,568	
Feathers, Furs and Skins.....	992,965	281,023
Furniture and Oil Cloth.....	719,806	5,946,983
Glass and Glassware.....	5,881,026	2,625,712
Green and Dried Fruits.....	6,686,893	4,161,011
Grass and other Seeds.....	4,611,858	865,404
Grain of all kinds.....	53,298,229	17,220
Groceries, (except Coffee).....	8,373,193	55,166,018
Guano and Phosphate of Lime.....	425,875	6,180
Hardware.....	888,403	13,551,959
Hides and Hair.....	741,789	300,619
Hemp and Cordage.....	1,163,474	2,247,331
Iron, rolled, hammered, &c.....	10,333,912	45,283,211
Iron, Blooms and Pig.....	359,445	612,995
Iron, Railroad.....	503,163	1,113,012
Iron Ore.....	41,140	13,051,800
Lime and Plaster.....		692,304
Live Stock.....	100,861,000	56,000
Leather.....	2,244,388	1,820,971
Lard, Lard Oil and Tallow.....	16,190,512	46,410
Lumber and Timber.....	20,093,085	77,590
Machinery and Castings.....	3,877,808	17,228,839
Marble and Cement.....	126,601	4,331,575
Malt and Malt Liquors.....	613,353	68,890
Marketing.....		
Miscellaneous.....	2,693,688	1,856,112
Nails and Spikes.....	113,644	435,876
Oil, (except Coal Oil).....	1,424,913	2,180,145
Oysters.....		869,229
Paper and Rags.....	1,897,837	2,418,875
Pot, Pearl and Soda Ash.....	6,125,524	31,725,477
Powder.....	300	1,016,373
Queensware.....	4,815	5,460,294
Salt.....		1,011,965
Straw Boards.....	993,355	
Salt Meats and Fish.....	50,522,939	4,394,786
Soap and Candles.....	1,587,548	806,383
Tobacco.....	20,609,684	1,675,354
Tar, Pitch and Rosin.....	876,340	1,393,816
Wines and Liquors.....	866,610	4,669,766
Whiskey and Alcohol.....	19,801,749	30,015
Wool and Woolen Yarn.....	23,279,391	456,946
Military Stores, (U. S. Government).....	6,211,927	268,264
Clay.....	120,785	60,974
Bones.....	450,105	
Fire Brick.....		1,129,658
Total during the year. Pounds.	633,069,218	328,501,783

STATEMENT No. 15—Continued.

Union Line and Joint Traffic Combined, for the year 1866.

LIST OF ARTICLES.	PITTSBURGH TO	BALTIMORE TO
	BALTIMORE.	PITTSBURGH.
Agricultural Implements.....	536,613	27,530
Agricultural Productions.....	601,788	88,170
Bark and Sumac.....	19,681	4,257
Boots, Shoes, Hats, &c.....	1,190	4,885
Books and Stationery.....	9,133	10,238
Butter and Eggs.....	490,616	.....
Brown sheetings and Bagging.....	55,915	192,545
Carrriages.....	10,000	4,680
Cedarware.....	14,162	21,927
Confectionery and Foreign Fruits.....	1,000	1,489,111
Coal Oil.....	19,601,684	10,300
Coal, Anthracite.....	.....	.....
Coal, Bituminous.....	.....	.....
Coffee.....	7,200	9,212,471
Cotton.....	319,292	.....
Copper, Tin and Lead.....	24,835	36,879
Dry Goods.....	10,601	181,224
Drugs, Medicines and Dye Stuffs.....	68,693	296,211
Earthenware.....	29,150	50,608
Empty Barrels.....	301,830	3,219,700
Fresh Meats, Poultry and Fish.....	307,912	.....
Flour.....	22,409,480	.....
Feathers, Furs and Skins.....	67,104	4,043
Furniture and Oil Cloth.....	140,104	384,871
Glass and Glassware.....	2,048,238	18,660
Green and Dried Fruits.....	364,327	1,825,355
Grass and other Seeds.....	437,165	.....
Grains of all kinds.....	15,416,049	.....
Groceries, (except Coffee).....	900,693	81,929,928
Guanos and Phosphate of Lime.....	2,480,316	2,500
Hardware.....	272,232	119,106
Hides and Hair.....	435,094	166,087
Hemp and Cordage.....	73,216	13,346
Iron, rolled, hammered, &c.....	470,732	6,852,365
Iron, Blooms and Pig.....	17,380	2,016,087
Iron, Railroad.....	.....	53,200
Iron Ore.....	.....	.....
Lime and Plaster.....	9,275	89,793
Live Stock.....	15,181,000	14,000
Leather.....	183,072	29,401
Lard, Lard Oil and Tallow.....	746,692	6,240
Lumber and Timber.....	3,684,168	.....
Machinery and Castings.....	222,973	103,703
Marble and Cement.....	450,818	161,910
Malt and Malt Liquors.....	420,931	.....
Marketing.....	.....	.....
Miscellaneous.....	1,248,073	1,297,322
Nails and Spikes.....	.....	1,664
Oil, (except Coal Oil).....	3,400	82,905
Oysters.....	.....	419,663
Paper and Rags.....	4,820	8,625
Pot, Pearl and Soda Ash.....	36,200	353,791
Powder.....	.....	14,475
Queensware.....	.....	16,270
Salt.....	.....	118,020
Straw Boards.....	.....	8,125
Salt Meats and Fish.....	12,358,400	62,928
Soap and Candles.....	823,470	17,628
Tobacco.....	2,803,474	703,846
Tar, Pitch and Rosin.....	.....	484,101
Wines and Liquors.....	678,352	96,631
Whiskey and Alcohol.....	2,284,369	31,425
Wool and Woolen Yarn.....	71,384	.....
Military Stores, (U. S. Government).....	547,102	8,400
Wood in Shape.....	175,825	.....
Total during the year. Pounds...	108,863,143	62,347,269

STATEMENT No. 15—Continued.

Way Freight to and from Philadelphia, for the year 1866.

LIST OF ARTICLES.	PHILADELPHIA	WAY STATIONS
	TO WAY STATIONS.	TO PHILADELPHIA.
Agricultural Implements.....	836,608	151,575
Agricultural Productions.....	5,843,262	7,339,674
Bark and Sumac.....	2 485	6,005,052
Boots, Shoes, Hats, &c.....	873,956	1 220
Books and Stationery.....	28,065	18,978
Butter and Eggs.....	4 129	3,628,749
Brown Sheetings and Bagging.....	355,534	14 3 9
Carriages.....	138,128	44,414
Cedarware.....	767,008	7,540
Confectionery and Foreign Fruits.....	326,725	
Coal Oil.....	843,379	213,762,994
Coal, Anthracite.....	34,073,529	165,632
Coal, Bituminous.....		696,967,445
Coffee.....	1,110,266	
Cotton.....	399,438	
Copper, Tin and Lead.....	222,239	113,508
Dry Goods.....	38,744,516	13,780,972
Drugs, Medicines and Dye Stuffs.....	6,126,273	224,406
Earthenware.....	6,454	
Empty Barrels.....	7,119,654	350,196
Fire Brick.....	2,247,025	
Fresh Meats, Poultry and Fish.....	20,020	1,180,777
Flour.....	916,770	40,189,401
Feathers, Furs and Skins.....		75,910
Furniture and Oil Cloth.....	2,056,362	1,140,893
Glass and Glassware.....	741,870	131,546
Green and Dried Fruits.....	714,387	3,073,931
Grass and other Seeds.....	37,927	2,426,879
Grain of all kinds.....	1,027,616	67,821,158
Groceries, (except Coffee).....	46,000,035	115,917
Guano and Phosphate of Lime.....	1,316,352	105,590
Hardware.....	4,376,315	653,955
Hides and Hair.....	2,437,161	157,451
Hemp and Cordage.....	834,473	13,068
Iron, rolled, hammered, &c.....	23,456,177	84,993,968
Iron, Blooms and Pig.....	1,863,419	5,508,069
Iron, Railroad.....	4,133,087	6,112,220
Iron Ore.....	10,325	
Lime and Plaster.....	1,976,417	292,200
Live Stock.....	705,310	61,846,243
Leather.....	401,409	4,003,664
Lard, Lard Oil and Tallow.....	16,167	302,625
Lumber and Timber.....	1,746,923	123,607,356
Machinery and Castings.....	10,614,471	1,582,686
Marble and Cement.....	8,027,661	200,021
Malt and Malt Liquors.....	1,123,720	6,836,074
Marketing.....	109,054	4,027,356
Miscellaneous, Stone, Bones, &c.....	12,303,541	1,722,615
Nails and Spikes.....	506,178	4,301,128
Nickel Ore.....		47 22
Oil, (except Coal Oil).....	242,448	26 57
Oysters.....	2,159,933	
Paper and Rags.....	2,718,236	3,357,972
Pot, Pearl and Soda Ash.....	2,355,476	19,470
Powder.....	308,624	
Queensware.....	1,187,072	
Salt.....	9,114,919	
Straw Boards.....	103,052	1,063,459
Salt Meats and Fish.....	5,620,212	139,000
Soap and Candles.....	64,230	50,760
Tobacco.....	322,290	1,695,150
Tar, Pitch and Rosin.....	229,779	110,992
Wines and Liquors.....	1,073,700	112,754
Whiskey and Alcohol.....	3,774	4,212,056
Wool and Woolen Yarn.....	308,624	2,359,516
Military Stores, (U. S. Government).....	6,855	477,790
Total during the year. Pounds...	246,040,034	1,323,877,660

STATEMENT No. 15—Continued.

Way Freight from and to Pittsburgh, for the year 1866.

LIST OF ARTICLES.	PITTSBURGH TO	WAY STATIONS TO
	WAY STATIONS.	PITTSBURGH.
Agricultural Implements.....	182,175	24,286
Agricultural Productions.....	4,018,121	657,172
Bark and Sumac.....	.....	34,613,396
Boots, Shoes, Hats, &c.....	8,010	.....
Books and Stationery.....	10,650	8,599
Butter and Eggs.....	35,514	80,349
Brown Sheetings and Bagging.....	28,010	7,706
Carriages.....	81,600	289,333
Cedarware.....	15,256	.....
Confectionery and Foreign Fruits.....	2,515	.....
Coal Oil.....	6,773,035	5,280
Coal, Anthracite.....	20,000	2,143,116
Coal, Bituminous.....	82,200	521,581,866
Coffee.....	26,490	.....
Cotton.....	177,529	.....
Copper, Tin and Lead.....	36,058	27,600
Dry Goods.....	8,197,815	4,207,015
Drugs, Medicines and Dye Stuffs.....	97,936	45,670
Earthenware.....	171,681	.....
Empty Barrels.....	25,600	1,705,499
Fire Brick.....	21,175	.....
Fresh Meats, Poultry and Fish.....	17,994	16,705
Flour.....	19,734,072	263,885
Feathers, Furs and Skins.....	.....	.....
Furniture and Oil Cloth.....	979,820	1,207,975
Glass and Glassware.....	771,931	760
Green and Dried Fruits.....	885,081	10,065
Grass and other Seeds.....	33,454	21,670
Grain of all kinds.....	9,864,652	1,799,547
Groceries, (except Coffee).....	8,079,714	30,801
Guanos and Phosphate of Lime.....	4,440	.....
Hardware.....	905,229	699,875
Hides and Hair.....	741,553	28,893
Hides and Cordage.....	239,842	3,180
Iron, rolled, hammered, &c.....	2,803,665	4,229,322
Iron, Blooms and Pig.....	4,033,174	121,280,023
Iron, Railroad.....	6,957,724	98,238,976
Iron Ore.....	1,418,893	6,330,300
Lime and Plaster.....	45,205	16,144,135
Live Stock.....	106,956,345	2,182,380
Leather.....	15,580	183,069
Lard, Lard Oil and Tallow.....	428,964	60,815
Lumber and Timber.....	4,439,123	83,807,648
Machinery and Castings.....	7,901,839	2,525,999
Marble and Cement.....	314,878	748,701
Malt and Malt Liquors.....	1,946,390	18,272
Manufactures.....	99,870	9,649,230
Marketing.....	.....	.....
Miscellaneous, Stone, Clay, &c.....	7,084,144	11,160,288
Nails and Spikes.....	230,474	721,310
Oil, (except Coal Oil).....	12,736	21,520
Oysters.....	.....	.....
Paper and Rags.....	171,350	807,935
Pot, Pearl and Soda Ash.....	12,325	11,000
Powder.....	27,668	108,015
Queenware.....	85,461	.....
Salt.....	518,503	376,525
Strawboards.....	.....	6,604
Saltmeats and Fish.....	2,093,779	.....
Soup and Candles.....	63,115	.....
Tobacco.....	303,298	207,679
Tar, Pitch and Rosin.....	1,584,811	14,175
Wines and Liquors.....	107,619	2,900
Whiskey and Alcohol.....	1,237,802	211,495
Wool and Woolen Yarn.....	115,909	52,057
Military Stores, (U. S. Government).....	3,745,500	146,196
Total during the year. Pounds...	276,503,245	928,211,421

REPORT OF THE GENERAL SUPERINTENDENT
OF THE
PHILADELPHIA AND ERIE RAILROAD.

PHILADELPHIA AND ERIE R. R., (P. R. R. Co., Lessee,)
GENERAL SUPERINTENDENT'S OFFICE,
ERIE, *January 1st, 1867.*

To the President and Directors of
The Pennsylvania Railroad Company.

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

		GROSS EARNINGS.	
Freight,	- - -	\$1,744,299	13
Passenger,	- - -	686,621	78
Mails,	- - -	18,501	96
Express,	- - -	26,941	43
Government Troops,	-	48,103	13
Incidentals,	- -	16,584	36
			\$2,541,051 79
		EXPENSES.	
Conducting Transportation,		768,260	48
Motive Power,	- -	682,947	62
Maintenance of Way,	-	624,245	02
Maintenance of Cars,	-	11,521	41
			2,086,974 53
Net Earnings,	- - - -	454,077	26
Deduct proportion of earnings paid P. & E. R. R.,		732,738	80
Loss to Pennsylvania Railroad Co.,		\$278,661	54

The Philadelphia and Erie proportion of earnings is as follows:

Gross Earnings,	-	-	-	\$2,541,051 79
Less U. S. Tax,	-	-	\$41,919 11	
Less State Tax,	-	-	27,767 73	
Less Drawbacks and Overcharges,			28,902 29	
			<hr/>	98,589 13
Actual Earnings,	-	-	-	2,442,462 66
Thirty per cent. of which is	-	-	-	<u>732,738 80</u>

The earnings and expenses for 1866, compared with those of 1865, are:

	Earnings.	Expenses.	Net Earnings.
1866,	\$2,541,051 79	\$2,086,974 53	\$454,077 26
1865,	2,074,140 79	1,758,707 15	315,433 64
	<hr/>	<hr/>	<hr/>
Increase,	<u>466,911 00</u>	<u>328,267 38</u>	<u>138,643 62</u>

The expenses ordinary and extraordinary are equal to 82 per cent. of the gross earnings, against 84½ per cent. in 1865, and deducting the latter as shown in Maintenance of Way, are 74 per cent.

This result would have been more favorable, but for the decrease in gross passenger earnings of near 20 per cent. which could not be met by a corresponding decrease in expenses, without reducing facilities offered to the travelling public, and thereby discouraging the future growth of the traffic. This decrease is common to all railways in the country, but proportionately greater on this road, caused by the reduced travel to the Oil Region, which, during 1865, was unnaturally heavy.

The freight earnings have increased sixty per cent. over those of 1865. They have been as then, chiefly derived from local sources, and satisfactorily show the development of the country traversed by the road.

MAINTENANCE OF WAY.

This account amounts to \$624,245 02, equal to 29.9 per cent. of expenses, and has been charged with

Repairing flood damages of 1865,	-	-	\$20,918	60
Expenses due to deficient and defective construction,			185,851	56

Total,	-	-	-	-	\$206,770	16
deducting which, would leave	-	-	-	-	417,474	86

equal to \$1,449 56 per mile of road, as ordinary expenses in this department.

The first item is properly chargeable to operating expenses, and has only been noted as due to a previous year; but the second, a detailed statement of which is given in the Chief Engineer's Report, consists of such expenditures as have been required to maintain the track in good condition, which would have been unnecessary had it been constructed as prescribed by the Lease and Contract.

During the past year, 7 $\frac{1}{8}$ miles of additional sidings have been laid, which have partially met the needs of the business. The necessity for sections of double track, as mentioned in last year's report is still urgent, particularly on the Eastern Division east of Williamsport.

The Lumber shipments alone from that point have amounted to 5,000 car loads, more than doubling those of 1865; while the increasing tonnage from the Canandaigua Division of the Northern Central, and from the Middle and Western Divisions of this Road, has taxed its capacity to the utmost.

The regularity and freedom from accidents attending train movements for the past season, indicates the improving condition of the track.

The accompanying Report of the Chief Engineer gives the operations of this Department in detail.

CONDUCTING TRANSPORTATION.

This account stands on the books of the Company at \$1,500,-999 28, which includes \$732,738 80 due the Philadelphia & Erie Railroad on lease; deducting this leaves \$768,260 48, or 36 $\frac{8}{10}$ per cent. of expenses, and shows an increase over 1865, of \$218,087 87.

One-half of this is due to the accounts, Car Service, Drawbacks and Overcharges, and State Revenue Tax.

Car Service represents the repairs of Freight and Passenger Cars, which are paid by the Pennsylvania Railroad Co., and a variable rate per ton on the business of the Road, charged to balance the account of actual cost only.

In 1865, there was a direct loss of over \$40,000 for Repairs, which the service failed to cover. For the past year the service has slightly overbalanced, and shows an increase in the account of

Repairs	-	-	-	-	-	\$76,051 34
Drawbacks and Overcharges, increase,	-					16,247 42
State Revenue Tax, a newly imposed one,	-					16,176 17

Total of these Accounts,	-	-	-	-	-	<u>\$108,474 93</u>
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The remaining increase is divided up among the various headings, and is justly due to the increased tonnage.

The fluctuations of the Freight business have been heavy and sudden during the year, which have added in no small degree to the expenses of this and the Motive Power Department, compelling either the discharge of experienced employees to meet the reduced earnings, and the consequent risk of filling their places with untried men when required, or by retaining them to temporarily increase the percentage of expenses to income. In either case the net revenue suffered.

The shipments of Anthracite Coal Westward, amounted to 2,850 Car loads, equal to near 30,000 tons. Of this amount, about 8,000 tons have been consumed locally and in the Oil Region, and the remainder shipped to Lake Ports. This busi-

ness, although necessarily carried at a reduced rate, has been a source of profit, by furnishing return freight for otherwise empty cars.

In comparison with 1865, the leading articles of Freight and Passengers transported are :

	1865.	1866.	Increase.
Barrels Oil, - -	326,082	673,125	347,043
Tons Lumber, -	145,228	215,282	70,054
Tons Anthracite Coal,	120,803	169,899	49,096
Tons Bituminous Coal,	26,042	86,359	60,317

Total tonnage moved one mile 66,736,892, equivalent to 231,725 tons over whole line of road.

PASSENGERS CARRIED ONE MILE.

	1865.	1866.	Decrease.
Passengers, -	21,145,306	22,227,504	1,082,198
Government Troops,	2,165,024	5,227,918	3,062,894

Total, 23,310,330, equivalent to 80,938 passengers over whole line of road.

The average distance travelled by each passenger was 33 $\frac{1}{3}$ miles.

MOTIVE POWER.

The charge to this account is \$682,947 62, or 32 per cent. of expenses, equal to 48 cents per mile run, against 55 for 1865. This result is due to the completion of the Repair Shops at Erie, Kane and Sunbury, which were placed in service early in the year, and at once increased the efficiency, while decreasing the relative expenses of the department. They have afforded all requisite facilities for engine repairs and for shelter, except at Erie, where the round house contains but twelve stalls. Its extension to a semi-circle of twenty-two stalls, as at Sunbury and Renovo, is much needed to properly protect the engines laying over.

There being no permanent car shops at Renovo, portions of the machine shop and round house have been used for such purpose. The accommodations thus afforded are insufficient, and inconvenience both branches of the department. Had it not been for the relief afforded by the use of the old shops at Erie, it is doubtful whether the condition of the rolling stock could have been properly maintained during the past year. These last, although small, and inconveniently located, have rendered efficient service.

The general condition of the power has improved, and has at all times more than met the demands of the business. No present addition seems to be required.

The Passenger Equipment remains as at the date of last report, no additions have been made, and none are needed. Some of the older cars are nearly past service, but their numbers can be easily filled at Renovo, when once sufficient shop-room is furnished.

The Freight Stock has been increased one hundred and seventy-six cars, from contracts made last year, leaving twenty-four to complete the order, which will be delivered this present month. New contracts have been made for one hundred additional gondolas, to be delivered by April 1st. The numbers destroyed during the year have been filled at Renovo, and the general condition of the stock is good, and fully equal to present demands.

The use of coke as a fuel on Passenger Engines, has been tried on the Eastern Division, with good success. Its freedom from smoke, as compared with bituminous coal, adds much to the comfort of passengers, while it is less destructive to the paint and varnish of the cars.

Further and detailed information in this department, will be found in the annexed report of A. J. Cassatt, Superintendent of Motive Power and Machinery.

MISCELLANEOUS.

In reviewing the year's operations, it may be said, that the local business of the road in the fullest sense has been satisfactorily accommodated. Occasional complaints of want of cars have been made, but the heavy increase of tonnage shows that these were but temporary, and that the equipment has been amply sufficient for the needs of the past year, even so much so, as to furnish the cars requisite for transacting the joint business with the Oil Creek and Warren & Franklin Railways.

The same, however, cannot be justly said of the construction facilities to be furnished by the lessors. The insufficiency of siding room has caused much delay and expense in train movements. Misled by a temporary decrease in the earnings of July, their Board suspended all construction work then in progress, and although the largely increased earnings of the next three months over any previous, induced them to revoke the order, yet the completion of much work essential to properly transact the present business and indispensable in case of a further increase, was prevented during the season.

The Lake business has been confined to shipments of Anthracite Coal Westward, and of some few cargoes of Michigan Lumber for Eastern cities. The difficulty of approach from the main ship channel to the Company's wharves, and their limited capacity for vessels of the larger class, has rendered it difficult for shippers to obtain transportation, except at higher rates than charged from other Lake ports; especially as the want of an elevator has compelled grain vessels to discharge at Buffalo and come in ballast to Erie. This last difficulty, it is hoped, will be remedied the coming season.

The Warren & Franklin Railway was opened to Oil city on August 1st, and has proved a valuable feeder to the road.

On April 1st the General Offices of the road were removed from Williamsport to Erie.

The operations of the road have been carried on with success during the year. Trains, both passenger and freight, have run with regularity and comparative freedom from accidents. Except in the case of a train thrown from the track on the Western Division, in February last, by a broken rail, no passengers have been injured; in that instance, the casualties were but slight.

All of which is respectfully submitted,

ALFRED, L. TYLER,
General Superintendent.

REPORT OF THE SUPERINTENDENT

OF

MOTIVE POWER AND MACHINERY.

OFFICE OF SUP'T OF MOTIVE POWER AND MACHINERY,

RENOVO, PENNA., *January 20th, 1867.*

ALFRED L. TYLER, ESQ.,

General Superintendent.

SIR:—I have the honor to submit the following Report of the operations of this department for the year ending December 31st, 1866.

There are at present ninety Locomotives on the Road, one new Passenger Engine having been received since the date of last report.

They are in the following condition:

In good order,	-	-	-	-	49
" running order,	-	-	-	-	22
" shop for repairs,	-	-	-	-	19
					<hr/>
Total,	-	-	-	-	90
					<hr/>

The following tables will show the performance of Locomotives :

MILES RUN.

	Passenger Trains.	Freight Trains.	Distributing Trains.	Total.
Eastern Division.....	168,327	288,392	28,869	480,588
Middle "	123,747	805,735	45,911	475,393
Western "	172,984	268,202	31,943	473,129
<hr/>				
Total mileage for 1866,	-	-	-	1,429,110
" " " 1865,	-	-	-	1,022,828
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Increase over 1865,	-	-	-	406,282
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GREATEST MILEAGE WITH PASSENGER TRAINS.

Eastern Division, Engine 1,007,	-	-	28,375 miles.
Middle " " 1,034,	-	-	26,921 "
Western " " 1,090,	-	-	23,632 "

AVERAGE MILEAGE WITH PASSENGER TRAINS.

Eastern Division,	-	-	-	-	21,041 miles.
Middle " "	-	-	-	-	20,624 "
Western " "	-	-	-	-	18,109 "

GREATEST MILEAGE WITH FREIGHT TRAINS.

Eastern Division, Engine 1,066,	-	-	27,894 miles.
Middle " " 1,072,	-	-	28,829 "
Western " " 1,055,	-	-	23,098 "

AVERAGE MILEAGE WITH FREIGHT TRAINS.

Eastern Division,	-	-	-	-	-	15,744 miles.
Middle “	-	-	-	-	-	18,572 “
Western “	-	-	-	-	-	14,116 “
Total average mileage with passenger trains,						19,377 miles.
“ “ “ “ freight “						15,876 “

COST OF REPAIRS, FUEL AND STORES.

	Repairs.	Fuel.	Stores.	Total.
Eastern Division	\$75,504 50	\$64,128 88	\$8,811 11	\$147,943 99
Middle “ 	64,796 28	54,312 15	8,877 09	127,485 47
Western “ 	63,968 32	62,619 47	7,195 96	133,778 75
Total, 1866.....	\$204,264 05	181,060 00	28,884 16	409,208 21
“ 1865.....	168,287 46	156,984 57	24,408 49	349,680 52

Showing an increase in the total cost of repairs, fuel and stores, over 1865, of \$59,527 69. This increase is small, when the increased tonnage on the Road is considered, and when it is recollected that the repair account of the past year is swelled by the amount of \$6,000, expended on engine 1,084 before it could be put in service, and that heavy expenditures were made on engines 1,083, 1,085, 1,086, 1,087, 1,088 and 1,089, before they had been more than a few months on the road.

TOTAL AVERAGE COST PER 100 MILES RUN.

	Repairs.	Fuel.	Stores.	Total average cost.
Eastern Division.....	\$15 66	\$13 48	\$1 74	\$30 83
Middle “ 	18 85	11 49	1 75	26 59
Western “ 	13 81	18 09	1 51	28 41
General average of Entire Road.	14 29	12 67	1 67	28 63

The decrease in average cost per 100 miles run from that of the year 1865, has been marked, viz :

Decrease in cost of repairs,	-	-	\$2 16
“ “ “ “ fuel,	-	-	2 68
“ “ “ “ stores,	-	-	73
Total decrease per 100 miles run,	-	-	<u>\$5 57</u>

The decrease in cost of fuel is partly due to the fall in the price of coal, but not wholly, as the following statement will show :

In 1865,	-	-	68.3 lbs.
“ 1866,	-	-	62.8 “
Decrease in 1866,	-	-	<u>5.5 lbs.</u>

The following table shows the amount of materials on hand at the different shops :

	Dec. 31st, 1865.	July 1st, 1866.	Dec. 31st, 1866.
Sunbury	\$46,881 89	\$69,918 96	\$44,869 55
Renovo	148,508 62	154,140 69	90,797 25
“ Iron Foundry	8,745 34	14,856 34	11,207 90
“ Brass “	544 62	977 52	731 90
Kane	4,898 07	13,426 69	11,376 81
Erie	73,299 04	77,635 02	75,362 01
Totals	<u>\$282,872 08</u>	<u>330,955 22</u>	<u>284,345 42</u>

The material now on hand stands at about market rates ; the old stock, which was purchased when prices were at the highest, having been worked off gradually. It is believed that the amount of material on hand can be still further reduced, and that the saving in interest, and in the waste incident to too large a stock, will be important.

ROLLING STOCK.

Since the date of last Report, three new express cars and one new passenger car were placed on the Road. These, together with a new baggage car, (to replace one destroyed,) were built at the Renovo Shops.

PASSENGER EQUIPMENT.

	On hand Dec. 31st, 1885.	Rec'd in 1886. Built at Renovo Shops.	Total	In shop to re- build and repair.	Total in service.
Passenger	49	1	50	12	38
Baggage.	15		15	6	9
Express		3	3		3

From the above table it will be seen that the number of passenger and baggage cars in actual service, has not changed since the date of last report. The condition of the passenger equipment is fair, and is improving.

FREIGHT CARS.

	On hand Dec. 31, 1885.	Built at Renovo Shops.	Built by Con- tract.	Total	To re- build.	Placed in other service.	In shop for slight repairs.	In actual ser- vice.
Box.	291	1	50	342	6	43	11	282
Gondola.....	774	15	126	915	6	24	15	870
Stock	20			20	4			16
8 wheel coal.....	30			30				30
4 " "	40			40	1			39
Totals.....	1,155	16	176	1,347	17	67	26	1,237

Showing that of a total of 1,347 freight cars on the Road, 1,237 are in freight service in running order, 67 are in other service, and only 26 in shop for slight repairs, and 17 to be rebuilt. The freight equipment is, therefore, in as good condition as could be desired.

In the Maintenance of Way Department, there are the following:

Box Cars,	-	-	-	-	7
Gondolas,	-	-	-	-	68
Dumps,	-	-	-	-	96
Hand Cars,	-	-	-	-	63
Hand Trucks,	-	-	-	-	83
Derrick Cars,	-	-	-	-	1
Boarding and Supply Cars,	-	-	-	-	6
Total,	-	-	-	-	<u>324</u>

RECAPITULATION.

Total number of Passenger Cars,	-	-	-	-	49
" " " Baggage "	-	-	-	-	15
" " " Express "	-	-	-	-	3
" " " Freight "	-	-	-	-	1,347
" " " Maintenance of Way,	-	-	-	-	324
Total number of Cars,	-	-	-	-	<u>1,738</u>

There are 24 Gondola cars yet to be delivered to complete old contracts, and 100 new Gondolas have been contracted for, and will be in service before the 1st of April.

ADDITIONAL FACILITIES REQUIRED.

The Erie Engine House is not large enough to accommodate the necessary number of engines, and an addition of ten stalls is badly needed. Coal and wood platforms are also required at this point.

Much inconvenience and delay has been experienced at Kane, on account of the locomotives having to be coaled on the main track. Coal and wood platforms, located on the siding leading to the engine house, are almost an imperative necessity.

At Renovo the Engine House, Machine and Blacksmith Shops, and Foundry, are of sufficient capacity for the present business, but the Car Department is very much embarrassed from the want of proper accommodations. All the repairs of cars, both freight and passenger, together with the painting, have to be done in the east end of the Engine House.

The expense of car repairs at this point has been largely increased by this want of adequate facilities. I would therefore respectfully urge on your consideration the importance of erecting car and paint shops during the present year.

During the past year the condition of the Power steadily improved, and was at all times equal to the demands made upon it; and, in conclusion, it may be stated, that if the present force of mechanics is retained, the Power will, without the addition of any new locomotives, be capable of hauling fifty per cent. more tonnage than was moved at any time during the past year.

Respectfully submitted,

A. J. CASSATT,
Supt. Motive Power and Machinery.

REPORT OF THE CHIEF ENGINEER

OF THE

PHILADELPHIA & ERIE RAILROAD,

(*Penna. R. R. Company, Lessees.*)

MAINTENANCE OF WAY DEPARTMENT, *Williamsport, Pa., Dec. 31st, 1866.*

ALFRED L. TYLER, Esq.,
General Superintendent.

SIR:—I beg leave to present the following report of the operations of this department for the past year. The work of the year has progressed regularly, without any serious interruptions or unusual occurrences.

The books of this department show an expenditure during the year, Charged to Maintenance of Way, of*

In this amount are included the following items which do not properly come under the head of ordinary repairs.

CHARGEABLE TO ORIGINAL CONSTRUCTION BETWEEN WHEAT- HAM AND WARREN.

Graduation, Western Div., (Warren to Kane),..... \$ 5,662 67
" Middle, " 23,884 72
" " (St. Mary's to Wilcox),..... 6,162 66

36,710 06
Bridges and Culverts, Middle Division..... 9,741 31

EXTRAORDINARY EXPENSES TO REPAIR DAMAGES BY FLOOD OF MARCH, 1866.

Bridge Masonry, Western Division..... \$15,124 78
" Middle " 234 06
" Eastern " 1,777 37

17,136 21
Road bed, repairs of, Middle Division..... 2,947 23
Road bed, repairs of, Eastern " 836 16

3,782 39
20,918 60

Cost of rebuilding bridges and completing construction on portions of Road operated previous to lease with Penna. R. R. Co., and which were to have been made good by the Phila'da & Erie R. R. Co.

ITEMS.	Sunbury to Wheatham.	Warren to Erie.	Totals.		
Bridges.....	\$77,740 13	1,577 49	79,317 62		
Culverts	1 886 26	588 58	2,474 81		
Graduation	27,648 83	3,058 58	31,606 41		
Ballasting.....	8,027 91	15,012 54	23,040 45		
Retaining Walls.....	1,414 82		1,414 82		
Buildings	1 535 46	1,011 63	2,547 09		
Totals, - - - - -	118,253 40	22,146 80	140,400 20	140 400 20	203,770 16
Leaving the cost of ordinary Maintenance of Way, - - -					\$391,765 11

*This amount does not include charges that may have been made under the head of "Maintenance of Way accounts" by the Motive Power and other departments, and not reported to this office.

GRADUATION AND RAILWAY SUPERSTRUCTURE.

The Guard Bank on Sunbury Shop grounds, reported as in progress last year, has been completed, and the necessary grading done in Sunbury yard for an extension of the tracks at each end, and for three new sidings, and all the tracks in that yard have been ballasted with gravel.

An open water way of twelve feet span, and one hundred and four feet in length, has been built near Northumberland, for the use of the steam saw-mill at that point, and the road bed graded the same place for two sidings, half a mile long. Three hundred feet lineal of retaining wall have been rebuilt, near Montoursville, and the *side hill cuts* near that place sloped. A large amount of earth has been removed from the side hills between Jersey shore and Lock Haven, and used for widening banks, the track in several places being moved out from the foot of the slopes on to the embankment thus made.

A quantity of rock has been removed from the side hills between Lock Haven and Renovo, and six hundred and fifty feet lineal of slope wall built east of North Point, to prevent freshets in the river from washing away the banks.

On the Eastern Division, twenty stone drains, two box culverts, and one brick sewer have been built new, and twelve drains, and four culverts repaired.

A number of the side hill cuts between Round Island and Sterling have been sloped; about fourteen hundred yards of rock have been removed between Renovo and Westport, and six hundred perches of retaining wall built. About three hundred yards of rock have been taken down between Keating and Round Island, and used for rip-rapping banks. Much has been done towards completing the graduation between Ridgway and Wilcox, which was left in a very unfinished condition at the time of opening the road.

The masonry of nine open water ways, varying from three to fifteen feet span, between Renovo and Kane, has been entirely

rebuilt, and the wing walls of two others. Considerable material has been removed from the rock cuts west of Kane, and the Western Division has been ditched.

One culvert near Union has been repaired, and one near Jackson's station rebuilt. The general character of the track has been much improved during the year, a quantity of new material having been used. Some stone ballast has been put in the track on the Eastern Division, and between Warren and Erie a large amount of gravel ballast has been used.

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

	Eastern Div.	Middle Div.	Western Div.	Total.
Tons of Iron Rails for Construction....	179	144	216	539
“ “ “ Renewals.....	488	58	118	654
Number of Chairs for Construction....	813	652	647	2,112
“ “ “ Renewals.....	2,132	2,108	2,371	6,611
Pounds of Spikes for Construction.....	13,200	7,270	17,265	37,735
“ “ “ Renewals.....	15,355	26,556	26,166	68,077
Number of Cross Ties for Construction.	3,982	2,845	4,787	11,614
“ “ “ Renewals.....	50,838	11,107	63,332	125,277

Grading has been done for the extension of the Williamsport Lumber Branch, a distance of three thousand feet, as well as for a number of new sidings on different parts of the road.

The following extensions of track have been made during the year.

Sidings at Sunbury,	-	-	-	1,922 feet.
“ Brown's, (near Milton,)	-	-	-	810 “
“ Muncy,	-	-	-	340 “
“ Montoursville,	-	-	-	2,368 “
“ Williamsport, (Lumber Branch,)	-	-	-	3,000 “
“ Graham's, (west of Farrandsville,)	-	-	-	2,340 “

Sidings at Renovo,	-	-	-	10,140 feet.
" Kane,	-	-	-	4,016 "
" Cummingsville,	-	-	-	2,300 "
" Otts,	-	-	-	850 "
" Irvineton,	-	-	-	2,946 "
" Pittsfield,	-	-	-	424 "
" Corry,	-	-	-	311 "
" Erie, (Outer Depot),	-	-	-	9,531 "
" " (Harbor ")	-	-	-	1,322 "
Total,				8 miles, 380 feet.

The length of Main Track in use, is	-	287.51 miles.
" " Sidings in use is	-	63.022 "
" " Private Sidings in use, is	-	9.193 "
Total length of Track in use,		359.725 miles.

Connections have been made with the tracks of the Warren & Franklin Railroad Company at Irvineton.

BRIDGES.

The superstructure of the bridge over the north branch of the Susquehanna, at Sunbury, 973 feet long, has been replaced by a Howe truss, the masonry grouted and coped, new ice-breakers constructed, and the foundations rip-rapped.

At Northumberland bridge new ice-breakers have been built, and the foundations have been rip-rapped. The roofing and covering of Montgomery bridge, reported in progress last year has been completed; one pier, injured by the flood of March, 1865, has been rebuilt; the ice-breakers have been renewed, and rip-rapping done.

The Trestle bridge, east of Muncy, has been replaced by a Howe truss of 40 feet span, for double track. The masonry of

Williamsport bridge has been repaired and coped, and the superstructure, 1,133 feet long, constructed last year at that place has been roofed and covered. New wing walls have been built at Lycoming bridge. The wooden stringers near Wayne, 2 spans of 18 feet each, have been replaced by iron girders, and the masonry has been rebuilt. Bald Eagle and Queen's Run bridges have been strengthened by additional arch bolts, the masonry has been repaired, and considerable rip-rapping done at the latter. At Hyner's run, the trestles have been replaced by a Howe truss of 40 feet span. Four stringer bridges of 16 to 20 feet span, the draw-bridge over canal at Lock Haven, and a public road bridge near Hyner's, all on the Eastern Division, have had their superstructures renewed, and the masonry of three others has been repaired.

The stringer bridge at Dahoga, destroyed by fire, has been rebuilt. Westport bridge has been roofed and covered. All the bridges on the Middle Division have received more or less repairs, and additional floor beams and new track stringers have been put down to give additional stiffness to the floors. The piers on the Sinnemahoning have been all rip-rapped. The pier of Irvine bridge, and both abutments of Union bridge, destroyed by the freshet of March 1865, have been rebuilt and extended for second track; at the latter place the water-way has been widened from 60 to 100 feet, and a Howe truss substituted for the old superstructure. The masonry at Mead's Run, near Youngsville, has been rebuilt and the superstructure replaced by iron girders. The superstructure of the first bridge east of Union, has been replaced by a Howe truss of 62 feet span. The renewal of Belle Valley trestle is now in progress. On the Western Division repairs have been made at a number of places, spanned by stringers on trestles.

ENGINE HOUSES AND MACHINE SHOPS.

The new shops at Kane and Erie were completed and put into operation early in the year. The old shops at the latter place

have been repaired and drained, and adapted for use in painting and repairing cars. At Renovo, platforms and bins have been built for strong castings and other shop materials, and the foundations of an Oil House have been laid. The temporary engine house at St. Mary's, 20 by 120, was burned in August last, and has since been rebuilt. At Sunbury, bins have been built for shop materials, eighteen pits in the engine house have been repaired and the turn-table put in good order:

COAL, WOOD AND WATER STATIONS.

New tubs have been placed in the tank houses at Jersey Shore and Bald Eagle, and the buildings have been repaired. Sheds for storing coke for use of passenger engines, have been built at Sunbury, Lock Haven, Renovo, Kane and Erie. The line of pipes leading to Grove reservoir has been taken up and relaid in a new location to avoid injury by lumbering operations. A new well, five inches bore and two hundred and seventy feet deep, has been sunk at Kane, and is now supplying water to that station, and a tank holding 50,000 gallons, and covered by a suitable building, has been erected at same place. Two coal houses, 16 by 24 feet, have been built at Renovo, to store a supply for the shops, and the coal platform at St. Mary's has been extended and covered. A tank and building similar to that at Kane, has been completed at Erie Shops, and is supplied from a well by a Worthington pump, taking steam from the shop boilers.

The Union reservoir has been relined with brick. The pipes leading to Columbus water station, have been renewed. Temporary coal platforms have been constructed at Warren and at Erie. The masonry of all our reservoirs has been more or less injured by the action of frost, owing to the want of suitable covering, and in consequence requires annual repairs.

FUEL.

The consumption of fuel during the year was as follows:—

	Cords of Wood.	Net Tons of Coal.
Eastern Division, - -	4,424	9,261
Middle “ - -	5,695	17,245
Western “ - - -	3,308	9,229
Consumed by Locomotives, -	13,427	35,735
“ at Shops, Stations, &c.,	603	3,606
Total, - - -	14,030	39,341

The stock on hand December 31st, was as follows:

	Cords of Wood.	Net Tons of Coal.
Eastern Division, - -	5,123	2,052
Middle “ - -	1,794	2,002
Western “ - -	3,065	1,790
Total, - - -	9,982	5,844

ROLLING STOCK.

The rolling stock in use by this department, consists of seven locomotives, seven eight-wheeled caboose cars, sixty-eight eight-wheeled open trucks, six eight-wheeled dump cars, fifty four-wheeled dump cars, sixty-three hand cars, eighty-three hand trucks, four boarding cars, and two supply cars. Forty four-wheeled dump cars, in addition to the above, and belonging to this department, have been working on other branches of the Pennsylvania Railroad. An additional locomotive was in use part of last season on the Western Division, distributing gravel ballast.

PASSENGER AND FREIGHT STATIONS.

The passenger station at Lewisburg, commenced in 1865, has been completed and put into use, and a new frame building is now in course of erection at Northumberland, for a passenger depot. Repairs have been made at Lewisburg and Milton freight houses, and Lock Haven and North Point passenger depots. Platforms have been extended or rebuilt at nine different points on the Eastern Division, and sign and distance boards prepared for all stations. The Corry passenger station has been moved into the new building erected by the Atlantic & Great Western R. R. Co., and now used as a joint depot for all roads at that point. The old station house east of the Brokenstraw creek at Irvineton, has been moved to a point about half a mile west of its original location, and fitted up for a freight depot, jointly used by the Philadelphia & Erie and Warren & Franklin R. R. Co's, and the latter road has constructed a new building at the intersection of the two roads, used jointly as a passenger station.

At Erie outer depot, a frame building, 31 by 47, has been erected as an office for the yard dispatchers and train hands, and the shed for transferring freight has been completed.

LABORER'S TOOL AND WATCH HOUSES, ETC.

A frame building, 19 by 52, has been erected at Watsontown for use of the Maintenance of Way train men who were moved to that point from Williamsport. A frame building, 18 by 36, has been put up west of Muncy for the road men, and one near Garland for the foreman at that place. Three laborers houses on the Eastern Division, and those at four points on the Western Division, have been lathed and plastered. The temporary foreman's house at Round Island was destroyed by fire, and one, 16 by 24, has been built at Wistar Station to replace it.

ERIE HARBOR IMPROVEMENTS.

The construction of the pier in Erie Harbor was completed in the spring, 500 feet in length was planked, and bins erected for the accommodation of the coal trade, and the tracks were re-arranged and extended to suit the work to be done on them. The slips have been dredged out, and a channel cut from the pier to the main harbor channel.

Very Respectfully,

JOHN A. WILSON,

Chief Engineer.

