

FOURTH
ANNUAL REPORT
OF
The Directors
OF THE
Pennsylvania Railroad Co.
TO THE
STOCKHOLDERS,

December 31, 1850.



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1851.

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DIRECTORS, 1851-1852.

By the Stockholders.

WILLIAM C. PATTERSON,	CHRISTIAN E. SPANGLER,
SAMUEL V. MERRICK,	THOMAS T. LEA,
DAVID S. BROWN,	WASHINGTON BUTCHER,
GEORGE W. CARPENTER,	JOHN YARROW.

By the City of Philadelphia.

GEORGE HOWELL,	EDWARD M. DAVIS,
ALEXANDER J. DERBYSHIRE.	

By the Commissioners of Allegheny County.

WILLIAM WILKINS,	JOHN H. SHOENBERGER.
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President,

WILLIAM C. PATTERSON.

Treasurer,

GEORGE VAUX BACON.

Secretary,

THOMAS T. FIRTH.

ANNUAL MEETING.

The Annual Meeting of the Stockholders of the Pennsylvania Railroad Company, in accordance with the provisions of the Charter, was held on Monday, February 3d, 1851, at 10 o'clock A. M., at the Sansom Street Hall.

W. C. Patterson, Esq., President, called the meeting to order, and nominated the Hon. Charles Gilpin, Mayor of the City, as Chairman, which was unanimously agreed to, and on motion of George Bolden, Esq., P. C. Ellmaker was appointed Secretary.

W. C. Patterson, Esq., President, submitted and read the Annual Report of the Board of Directors.

The Report of the Chief Engineer, General Superintendent, and Treasurer, were also submitted, and the first named document read by the Secretary, when, on motion of Thomas Robins, Esq., the several Reports were referred to the Board of Directors for publication, and then the meeting adjourned.

CHARLES GILPIN,
Chairman.

P. C. ELLMAKER, *Secretary.*

FOURTH ANNUAL REPORT.

Office of the Pennsylvania Railroad Company,

Philadelphia, February 1, 1851.

The Board of Directors submit to the Stockholders, in compliance with the provisions of the Charter, a statement of the affairs of the Pennsylvania Railroad Company, from October 31, 1849, to December 31, 1850, the date now fixed by law for the termination of its fiscal year.

The report of the Treasurer shows the receipts of the Company,	
on account of capital stock, to the latter date, to have been	\$5,822,210 00
And the disbursements, - - - - -	5,095,546 12
<hr/>	
Leaving a balance of - - - - -	\$726,663 88
Which, with the amount of subscription yet to be collected, -	1,013,640 00
<hr/>	
Constitutes the available means of the Company for the prosecution of the work, - - - - -	
	<u>\$1,740,303 88</u>

The Board invite the attention of the Stockholders to the fact, that the amount of interest chargeable to construction account, being the balance of the interest account from the date of the organization of the Company to the 31st of December last, after deducting interest received and the net earnings of the road, is but \$211,123.29.

The Reports of the Chief Engineer, J. Edgar Thomson, Esq., and of the late Superintendent of Transportation, Herman Haupt, Esq., now General Superintendent, exhibit in detail the operations

of the departments with the management of which these gentlemen are respectively charged, and various other matters of more or less interest to the stockholders.

The Eastern Division of the road has been completed to the Tyrone Forges in a manner entirely satisfactory to the Board, and will not, in their estimation, suffer by contrast with any other railroad in the country. Between that point and Altoona, where the work upon the light sections was delayed some four months for want of means, its condition is by no means satisfactory, and measures will be taken in the course of the ensuing season to have this portion of the work and the Hollidaysburg Branch brought up to the high standard, which a proper regard for public opinion and the interest of the Stockholders has prescribed.

Upon the Western Division the work thus far has been well done, and has been executed as rapidly, except upon a few sections, as was deemed consistent with durability. The unhappy feuds among the laborers, resulting, in some cases, in loss of life, have been a source of delay and inconvenience, but it is believed that a recurrence of these discreditable scenes will be prevented by the admirable police arrangements made, under the sanction of the Board, by Edward Miller, Esq., the associate engineer in charge of that division. If, however, this expectation should not be realized, a firm local judiciary and a reliable military force are ready to assert the supremacy of the law promptly and effectively.

The Board have contracted, upon favorable terms, for a sufficient quantity of iron for the superstructure of the Western Division. While an honest State pride is gratified in adverting to the fact that the road is thus far constructed exclusively of Pennsylvania material, the Board have no hesitation in expressing their full conviction that the difference in price will be more than counterbalanced

by the superiority of our rails over the best of those recently imported for other roads. The contractors, as an evidence of their own confidence, bind themselves to replace, without charge, all rails which shall give way within five years from an original defect.

The Eastern Division of the road was opened for use to the Portage intersection, one mile west of Hollidaysburg, on the 17th of September last, too late to secure to the Company the full benefit of the Fall trade and travel, and the Portage Railroad was closed for repairs, by order of the Canal Commissioners, on the 7th of December. During the months of October, November, and December, the net receipts for passengers and freight were \$42,084.84; equal to an annual interest of $3\frac{83}{100}$ per cent upon the cost of this division, including the Hollidaysburg Branch, with the interest thereon chargeable to construction, and of all the cars, locomotives, machinery, and fixtures in use. This result induces the Board to believe that the road will, during the current year, earn six per cent. upon the cost of whatever portion of it may be brought into operation, and that it will henceforward yield an equal or larger percentage upon the whole outlay, productive and unproductive, after making proper provision for depreciation, by the creation of an ample contingent and renewal fund.

The local trade and travel increase so steadily as to leave little room for doubt that they will, in a few years, be adequate to the support of the road and the payment of the interest upon its cost. Even now the receipts at stations which had no name when the road was located exceed those at some of the largest towns upon the Juniata. A branch road is in course of construction to Blairsville, with means provided for that purpose by the citizens of that borough, and its extension by local effort to the town of Indiana, or the substitution of a plank road, will depend upon the results of surveys now in progress. The plank roads from Bedford to Hollidaysburg,

and from Somerset to Johnstown, with numberless kindred improvements under construction or in contemplation, will aid in swelling the receipts of the mother work, to which they owe their existence, and in developing the dormant wealth of Pennsylvania.

All other things being equal, the geographical position of Philadelphia will secure to her a virtual monopoly of the trade of the West against all rivalry. That trade is, however, too tempting a prize to be permitted to remain in any hands but those which are as prompt to defend as they are able to hold it. We must look the fact in the face that it is lost, in part at least, to Philadelphia, if further delay be suffered in the construction of the Mountain Division of the Pennsylvania Railroad. The Baltimore and Ohio Railroad is now under contract throughout its entire length. From Cumberland westward 5,000 men are at work upon it; 22,000 tons of rails have been imported for it, and the energy and sagacity which mark its management permit no doubt that it will be prosecuted with the utmost vigor till it reaches the Ohio River. The Erie Railroad, hitherto driven forward with very little regard to cost, must be completed to Lake Erie in May next, in compliance with the condition upon which \$3,000,000 of State and \$750,000 of private stock were relinquished to the present stockholders.

To compete with these unbroken lines from the seaboard to the western waters, managed, as they will be, by the ablest merchants of her sister cities, Philadelphia will have the Eastern and Western Divisions of the Pennsylvania Railroad connected by a link of 36 miles, embracing ten inclined planes, the crossing of which has heretofore generally consumed sufficient time to make the trip between Philadelphia and Pittsburgh upon a first-class railroad, and the use of which will entirely cut off from this Company one of its largest prospective sources of revenue, the transportation of live stock from points west of the Alleghenies to the eastern grazing

counties of Pennsylvania, and to the Philadelphia and New York markets.

It is suggested by the Chief Engineer that the sum of \$1,500,000 will suffice to build a road from Altoona to the head of Plane No. 2, by which the worst portions of the Allegheny Portage Road would be avoided, and the time consumed in crossing the mountains materially reduced. As a last alternative, this proposition might be adopted; but while the proposed connection would be, in many points of view, a decided improvement over the one now in use, it would fall very far short of accomplishing the primary purpose for which this undertaking was projected, of securing to the Commonwealth and its two great cities the benefits accruing from the possession of the trade and travel of the West, by furnishing a route which should in all respects compare favorably with the best of its rivals. That object can never be attained while any link, however small, shall remain under the ever-varying management incident to the incessant changes of State and local politics.

With a view to procure that result at the earliest possible day, and to promote, at the same time, what they conceive to be the true interests of the present stockholders, the Board earnestly recommend that immediate provision be made for putting the Mountain Division under contract at as early a period of the ensuing Spring as the character of the ground will permit. To build this portion of the road, and partially equip the whole, will require the filling up of the capital stock of the Company to the limit fixed by the recent action of the stockholders, under the authority conferred in the Charter. The amount subscribed to this date is \$6,835,850, which will be increased more than \$100,000 by the issue of stock, deliverable upon the completion of a portion of the contracts upon the Western Division, leaving to be supplied a sum slightly exceeding Three Millions of Dollars.

In asking at this time for this large additional subscription, the Board are aware that they are drawing freely upon resources already heavily taxed ; but they do not, on that account, hesitate to make the appeal. They make it in the confident belief that the sum they ask will, through the instrumentality of this road, be returned tenfold to Philadelphia and her citizens before the present generation shall have passed away, and that their demand will elicit a response worthy alike of the source from which it is to emanate, and of the object to which it is to be applied.

If we could forget what is due to ourselves, we are not at liberty to overlook our obligations to others who have united their fortunes with ours in a common destiny, and faithfully fulfilled their part of the implied contract. The extraordinary energy with which the Ohio and Pennsylvania Railroad has been driven westward has concentrated upon that improvement many smaller ones, originally projected with a view to very different connections, and created others destined to add largely to its revenues, and to those of the Pennsylvania Railroad. From the present year forward that road and its countless tributaries will pour upon the western terminus of ours an immense amount of tonnage, to find its way slowly, and at a comparatively heavy cost, over a broken line, till the completion of our entire road shall open an outlet for this and other roads whose most available eastern connection is still an open question, whose capacity shall be equal to any demands which can be made upon it.

The Board have made the best arrangements in their power for the transportation of merchandise and produce between Philadelphia and Pittsburgh, during the continuance of canal navigation for the current year, at prices varying from 50 cents to \$1 per hundred pounds. They have fixed these rates, not so much with a view to present profit as to the promotion of what they believe to be the

true interests of this Company, and of the mercantile community, with which it is so intimately identified. They have, after the most careful investigation and mature consideration, decided upon starting from the outset with a uniform tariff of low charges, in preference to the sliding scale, which has heretofore militated so seriously against the increase of the inland trade of Philadelphia and of the revenues of the Commonwealth.

The Board are gratified to have it in their power to state that they are sustained in the adoption of this system by the concurrence of the intelligent gentlemen who now compose the Canal Board, and that they are assured of their cordial co-operation in fixing it as the settled policy which shall hereafter govern the operations upon the State works as well as those of this Company.

They bring their action upon this subject to the notice of their constituents, in full confidence that it will meet their hearty approbation.

By order of the Board,

W. C. PATTERSON,

President.

THE TREASURER REPORTS

AMOUNT RECEIVED FROM STOCKHOLDERS IN PAYMENT OF

Instalments.....			\$5,822,210
AMOUNT EXPENDED, EASTERN DIVISION.			
Graduation and masonry.....	\$1,841,326 00		
Superstructure, ballast, bridges, iron rails, sills, ties, &c.....	1,598,485 87		
Engineer Department.....	151,085 96		
Land damages, fencing, real estate and right of way.....	167,062 03		
Station houses, water stations, &c.....	49,723 92		
		\$3,807,683 78	
WESTERN DIVISION.			
Graduation and masonry.....	520,087 55		
Ballast, ties, &c.....	9,480 68		
Engineer Department.....	76,493 37		
Land damages, fencing, real estate, right of way.....	52,973 63		
		659,035 23	
Organization and expenses.....		60,881 34	
Interest chargeable to cost of construction, being balance of interest account.....	\$384,331 51		
Less, earnings of Road.....	173,208 22		
		211,123 29	
Locomotives and cars.....		339,736 97	
Machinshops, foremen's houses, car sheds, &c.....		33,990 51	
Balance in hands of Agents.....	\$31,395 25		
Balance in hands of Treasurer..	678,363 63		
		709,758 88	
			\$5,822,210

E. E. PHILADELPHIA, January 1, 1851.

GEORGE V. BACON, Treasurer.

THIRD ANNUAL REPORT
OF
THE CHIEF ENGINEER.

Engineer's Department, Penna. R. R. Co.

Philadelphia, January 1, 1851.

To the President and Directors of the
Pennsylvania Railroad Company.

GENTLEMEN :—I have the honor to report, that since my last annual communication, your road has been extended from Lewistown to the Portage Railroad, a distance of seventy-eight miles.

The connection with that improvement was made in September, at which time there was a continuous railroad in use from Philadelphia to Johnstown, 279 miles in length.

For the purpose of adapting that portion of this line, owned by the Commonwealth—crossing the Alleghenies—to Winter use, the Canal Commissioners suspended operations upon it on the 7th of December, until the opening of navigation in the Spring; by which time it is hoped that such repairs and renewals will be made as will secure the route from further interruptions. The importance of effecting this object, so as to have secured this Winter's business to that improvement, was earnestly but unsuccessfully urged upon the Legislature of 1849 by the Boards of Trade of Philadelphia and Pittsburgh and the then Superintendent of the road; and in consequence of

the failure of their application a suspension of our freighting business, and a decrease in the passenger travel has taken place, materially affecting the revenues of the Commonwealth and the receipts of this Company. An earlier connection with the Portage Railroad was originally anticipated, but owing to the withdrawal of the work from contract, above Tyrone, until the capital of the Company could be increased to the amount necessary to pay for it—in conformity with the policy adopted by the Board—this could not be accomplished. Operations upon this portion of the line were not resumed until late in the Autumn of 1849, after which time it required every possible exertion, at an increased cost, to secure the completion of the work in time to give a practical test of the facilities afforded by the Portage Railroad, before its close, for transacting our business over it. To accomplish this we had to resort to a considerable amount of temporary bridging, that must be superseded by more permanent structures this year.

The object to be secured seemed to justify the expense and risks incurred and the probable consequences arising from any temporary inconvenience and irregularities that might follow a premature opening of the road. We have not been disappointed in the advantages obtained, but the annoyances we have been subjected to by bad connections with the State railroads, unavoidable under the circumstances, as well as from our own incomplete arrangements, were greater than we expected, causing complaints from those not familiar with the circumstances, or who could not appreciate the importance of the results anticipated from the policy adopted.

The cost of the graduation and superstruction of the Eastern Division, though increased from fifty to sixty thousand dollars, by the hurried execution of the work above Tyrone, during an unfavorable Winter and Spring for carting, has fallen within the estimates heretofore submitted. There is, however, a considerable

amount of work yet to do—passed over for the reasons already mentioned—which will fully consume the remainder of the original estimate. We have still a large unexpended balance on superstructure account, which will, it is thought, prove something larger than necessary to meet the demands for the completion of that part of the work omitted, in consequence of the freshness of the embankments, and the necessity of getting the whole work into early use. These consist of ballast on embankments, ditching, and draining track, cattle guards at road crossings, water pipes, tanks, and wood sheds at water stations, all of which are charged under this head.

The amount estimated for land damages and real estate has proved insufficient; the juries in most cases having exceeded our views of a just liberality in their awards in favor of the property holders.

The following statement will exhibit the payments on account of this division, up to the 1st of January, as taken from the books of the Treasurer, with the present and previous estimate of the ultimate cost of the road :

	Former estimate.	Amount paid.	Present estimate.
Graduation.....	\$2,115,000	\$2,068,179 35	\$2,175,000
Superstructure	1,535,000	1,400,357 86	1,485,000
Engineering, &c.....	145,000	134,799 03	145,000
Cost of road.....	\$3,795,000	\$3,603,336 24	\$3,805,000
Land damages and real estate.....	130,000	167,062 03	215,000
Total	\$3,925,000	\$3,770,398 27	\$4,020,000

The Interest Account of this division has been blended with that of the Western, and will be shown hereafter in the aggregate cost

of the whole road. But upon balancing the several debits and credits to this account, and making allowances for the disbursements upon the west side of the mountain, I find that the amount estimated (\$255,000) has proved sufficient to meet the demands upon it; the small estimated increase in the cost of the division being almost wholly in the item of land damages.

The amount expended for outfit, including shops, warehouses, cars, locomotives, and other machinery, up to the 1st inst., has been \$416,938.15, which is considerably less than estimated. This difference is partly caused by our inability to complete the machine shops at Altoona, as expected, owing to the inferiority of the brick first delivered.

MOUNTAIN DIVISION.

That portion of the road crossing the Allegheny Mountains, in consequence of the means of the Company being insufficient to justify its immediate execution, has been considered in our estimates as a separate division, though the summit of the mountain or the water shed parting the eastern and western waters at Laurel Swamp seems to be the natural landmark between the two grand divisions of the work. The estimates, however, will be continued as heretofore, but limiting the Mountain Division to the work not under contract, which will include the space from Altoona to the Stone Viaduct over the Conemaugh, on the Portage Railroad— $7\frac{8}{10}$ miles east of Johnstown—a distance of $31\frac{1}{2}$ miles.

During the past Fall a resurvey was made of that portion of the road ascending the eastern slope of the mountain, under the immediate direction of Mr. R. W. CLARK, as P. A. Engineer, with his accustomed accuracy, which demonstrates that the points of greatest difficulty upon the previous line—at Burgoon's and Kittanning Runs—can be materially cheapened, and the line at other points

much improved. But the lateness of the season prevented an actual location of the route thought to be the best, and I have assumed from the line traced that a saving of \$150,000 can be safely calculated upon the original estimate, and the distance shortened three-fourths of a mile. The elevation of the tunnel at Sugar Run Summit, on the new route, will be reduced from ten to fifteen feet, and its length increased to 3,750 feet; leaving the whole ascent to be overcome, from Altoona—the western terminus of the light gradients—984 feet. The length of line to overcome this elevation is 12½ miles.

No further surveys have been made of the Mountain Division, west of Sugar Run Summit, since my last report, but it is thought that some improvements can be made in the details of the location, to reduce its curvature.

The heaviest portions of this division lay at Sugar Run Gap, and on the eastern slope of the mountain. The tunnel will prove the most tedious job, and for the purpose of facilitating the completion of the grading, two shafts to work it from have been commenced, together with a sufficient amount of the eastern approach to open the face of the tunnel for working the drift. The entrance at the western approach is not difficult, and if the means are obtained early in the Spring for completing the division, this work can be ready for six gangs of miners by June, and the whole prepared for the rails in two years—as soon as the remainder of the grading east of the tunnel can be completed, if placed under contract at the same time. The heavy portions of the work on the eastern slope of the mountain, will consist of embankments across Mill Creek, Kittanning and Burgoon's Runs, and two small tributaries of Sugar Run. Except at the eastern approach to the tunnel, there are no excavations that can cause delay in the execution of the work. Beyond Laurel Swamp Summit, there are not many points

that will require a long period to grade. A tunnel through Pringle's Point, 600 feet in length, and some crossings of the Cone-maugh and its tributaries, are the most important.

It may also be observed, that should the Board fail to raise all the funds necessary to complete the Mountain Division, that for a sum not exceeding one and a half millions, a continuous road may be made from Altoona to the head of Plane 2, avoiding all the objectionable features of the Portage Railroad—except this plane—and save about six miles upon the present route travelled by our cars via Duncansville. After passing Plane 2, the line essentially differs from the route of the Portage, though a connection could be made with that work in the vicinity of Jefferson, avoiding all the planes; but it would be at the sacrifice of obtaining the best line for our road.

The present estimate of the cost of the Mountain Division from Altoona to the Stone Viaduct, is—

Graduation, &c., from Altoona to Laurel Swamp Summit, 15½	
miles, - - - - -	\$1,065,000
Graduation, &c., from Laurel Swamp Summit to Stone Viaduct,	
16½ miles, - - - - -	430,000
	<hr/>
	\$1,495,000
Engineering, - - - - -	\$45,000
Land damages, &c., - - - - -	35,000
Superstructure, - - - - -	350,000
	<hr/>
	430,000
	<hr/>
	\$1,925,000
	<hr/>

The importance of placing the work embraced within the above estimate, under contract at an early period this year, cannot be too strongly urged upon the Company. At the commencement of this enterprise, there was but little prospect of the immediate continuation

of the Baltimore and Ohio Railroad beyond Cumberland, or the New York and Erie Railroad west of Elmira. If this condition of things had remained, there would have been no difficulty in maintaining a successful competition with either of these works, by the use of the Portage Railroad as a part of the line between Philadelphia and Pittsburgh. But the progress of these improvements has not been as tardy as anticipated. The Baltimore and Ohio Railroad will be extended to the Ohio River in 1852, and the New York and Erie Railroad Company is under a forfeiture to the State, amounting to some \$3,000,000, if it should fail to complete its entire road in May next.

Under these circumstances, our route, subject to the delays and interruptions that must be caused by the use of the Portage Road, could maintain but a sickly competition for the travel and trade of the West with these improvements—each managed by one mind and one interest throughout their entire length, from the eastern to the western waters. With these facts before us, it is evident that the very heavy expenditures that we have incurred, on both sides of the mountain, will have failed to secure the great object sought by the construction of the road—producing only a work, useful and profitable it is true, as a local improvement, but devoid of that influence upon the trade of the City and the West, which its position and characteristics entitle it to command, and to promote which the work was mainly undertaken. No period could be more propitious than the present, for raising the means necessary for the immediate prosecution of the work, and it should not be suffered to pass unimproved.

That an investment in the stock of this Company will prove profitable, I believe no one at this time doubts. If there are any such, a glance at the accompanying map and profile of our route, and its connections, must convince the most skeptical, that the

region tributary to the road is *more* than sufficient to yield a business for its profitable employment—controlling, as it will, a local trade and travel, which the unbroken mountain barriers that stretch on the south from the Juniata to the Potomac, and on the north to the Susquehanna, secures to us, without a rival in our vicinity; together with a through business which the shorter distance by our route between all the West, south of the Lakes, and the great commercial marts of the East, its more favorable gradients, and the comparatively small cost of the road, must enable us to command.

The distance from New York, by the New York and Erie and Lake Shore Railroads, to Cleveland is 633 miles, while by the Pennsylvania Railroad, Pennsylvania and Ohio Road, and Cleveland and Pittsburgh Railroad, the distance between the same cities is but 583 miles, showing a difference in favor of our route of 50 miles to their own city, and 146 miles in favor of Philadelphia.

But for all of the country upon the line of the Pennsylvania and Ohio Railroad, or south of it, the difference in favor of Philadelphia is increased to about 200 miles.

Even for the trade of Baltimore itself, our line possesses advantages in gradients more than sufficient to counterbalance the few miles in favor of her route, by the Central Ohio Road to the interior of that State, a saving of actual distance, if any, which a direct road from ours to Wheeling, would destroy.

There being no conveyance at present through Pennsylvania, that can compete in time and comfort with the railroad and steamboat lines from Cincinnati, by the Lakes, to New York and Boston, the whole tide of travel between the East and West, which far exceeds in amount the calculations of those who have not witnessed it, now flows in that direction. But when our road is finished, and the Pennsylvania and Ohio Railroad is extended to the Cleveland

and Columbus Railroad, which it will be ere we reach Pittsburgh, the advantages in our favor above mentioned (if the Mountain Division is completed), must turn the tide of travel back upon us, with increasing numbers, from the reduced fare and decreased time (24 hours from Philadelphia to Cincinnati), which these will enable us to offer, giving abundant sources of revenue from passengers alone, to satisfy the most exacting capitalist.

When the Mountain Division is finished, there will be a continuous single track railroad from Philadelphia to Pittsburgh, free from inclined planes, with no gradient against the heavy trade, west of the Allegheny Mountains, exceeding $52\frac{8}{10}$ per mile on straight lines, and 40 feet on curves of minimum radii, or east of it, on that portion belonging to this Company, exceeding $10\frac{1}{2}$ feet per mile.

Double this line, and with the advantages it possesses in distance, gradients, and freedom from interruptions from changes of season, you will be able to compete successfully, *in economy of transportation*, with the Erie Canal, for the heavy trade of the West, and to exceed it greatly in dispatch—drawing to this City flour and other heavy commodities, which, by the aid of steamships, can be delivered, if desirable, in the markets of Europe, many days in advance of the route by the Lakes and Canals of New York.

Upon a single track railroad there can be but a limited amount of business done with regularity and safety; and as the cost of transportation on railroads, as in nearly every other business—but probably to a greater extent on railroads—decreases with its amount, it follows that the minimum cost of carriage cannot be reached until the means for the transportation of the maximum quantity is offered. But as this object is attainable, throughout the whole road, for a sum not exceeding three and a half millions, there can be no difficulty in raising the amount desired—after the completion of the

region tributary to the road is *more* than sufficient to yield a business for its profitable employment—controlling, as it will, a local trade and travel, which the unbroken mountain barriers that stretch on the south from the Juniata to the Potomac, and on the north to the Susquehanna, secures to us, without a rival in our vicinity; together with a through business which the shorter distance by our route between all the West, south of the Lakes, and the great commercial marts of the East, its more favorable gradients, and the comparatively small cost of the road, must enable us to command.

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single line—for proceeding with the additional track as fast as the increasing business of the road will require it.

WESTERN DIVISION.

As suggested in my last annual report, the details of the location of this division have been materially altered and improved, to conform to the rules established for the location of this road.

Under these general rules, each mile of distance saved—in comparing lines—has been valued at \$53,000, and each degree of curvature at \$50—other circumstances being equal. The maximum gradient has also been increased on straight lines to $52\frac{8}{10}$ feet per mile—a rise of one foot in a hundred—and decreased on curves at the rate of $\frac{2.5}{1000}$ of a foot per degree per 100 feet.

The application of these rules has effected greater improvements in the route than expected, either by Mr. MILLER or myself, and reflect the highest credit on the skill and judgment of the Principal Assistants, Messrs. G. W. LEUFFER and O. H. BARNES, under whose immediate direction the relocation has been made.

The total distance saved between Johnstown and Pittsburgh is $3\frac{1}{2}$ miles, and the reduction of curvature $2,781^\circ$ —from $7,912^\circ$ on the original location to $5,131^\circ$.—These savings, according to the above estimate of their value, is equal to \$308,650 ; or, in other words, the estimated decrease in the annual cost of transportation upon the new location is equal to \$18,500 per annum over the original line.

The line has also been freed from all the tunnels upon it, except two—one under the main street of Greensburg, 200 feet in length, and the other at Barclay's Summit, of 400 feet, one and a-half miles further west. Its comparative freedom from perishable structures is also remarkable, there being but two bridges upon the division,

one of 104 feet span over the Canal at Johnstown, and another of 100 feet across Turtle Creek ; the bridge across the Conemaugh being constructed of iron, and that at the Loyalhanna of stone. At the Sewickly a solid embankment is to be raised, instead of the wooden bridge proposed.

The whole division from Pittsburgh to the Big Viaduct, a distance of 85½ miles, is now under contract. That portion of the grading between Johnstown and the west side of Chestnut Ridge was let in November, 1849. It is in a satisfactory state of forwardness, and will be ready for the rails in April as far down as Bolivar. In the gap of Chestnut Ridge there is an embankment near the Pack-saddle Rocks, of 109 feet in height, which will not be finished until some time in the ensuing Summer.

As soon as it was ascertained that the subscriptions to the stock of the Company justified extending the contracts for grading, the remainder of the heavy work on this division was advertised and let in May last, together with those portions of the 15 miles adjacent to Pittsburgh that had not been previously contracted for ; and in the Fall the lighter sections were let, completing contracts for the whole division, including a branch to Blairsville 2½ miles in length.

The progress of the work has not been as great as anticipated, owing to the frequent conflicts between the different factions of laborers upon the road, which have caused much loss of time during the most favorable portion of the year for out-door operations.

It is believed, however, that we shall have no difficulty in completing the work east of the Loyalhanna, or to the Monastery grounds,* by the close of navigation of this year, where a junction

* This place is 39 miles east of Pittsburgh, and deducting 12 miles of railroad to be laid adjacent to Pittsburgh, leaves the 27 miles of staging.

can be made with the Southern turnpike, and the staging reduced to 27 miles. The very heavy grading between the mouth of Brush Creek and the Monastery will delay the completion of that part of the work until some time in 1852. Should labor be abundant, it may be finished by midsummer of that year; but at present it is scarce, and there seems to be no feasible means by which it can be advantageously increased.

The heaviest sections, and those which will cause most delay, are 18, 33, 36, and 37, amounting to \$140,000, \$50,000, \$110,000, and \$112,000 respectively. The first (section 18) is in the hands of M'Gran & Barry, of Lancaster; the second (33) is being executed by Michael Malone, of same place; the third (36) by Snodgrass & Haymaker, of Westmoreland, and the last (37) by Joseph Car, of Delaware—all old contractors, of acknowledged character for energy and good management.

The estimate of the cost of the division is somewhat greater than anticipated, owing to the large reductions made in its length and curvature, together with the substitution of imperishable structures for those of wood originally contemplated, as well as the occurrence of less loose, and more solid, rock in the excavations, than at first calculated upon.

ESTIMATE.

Between Big Viaduct and Blairsville Branch,	-	-	-	\$486,000
“ Blairsville and Loyalhanna,	-	-	-	230,000
“ Loyalhanna and Greensburg,	-	-	-	505,000
“ Greensburg and Brush Creek,	-	-	-	595,000
“ Brush Creek and Pittsburgh,	-	-	-	174,000
<hr/>				
Total 85½ miles,	-	-	-	\$1,990,000
Superstructure on this distance,	-	-	-	875,000
<hr/>				
Total cost of construction,	-	-	-	\$2,865,000

Amount brought forward,	-	-	-	\$2,865,000
To which add for engineering,	-	-	-	\$115,000
Real estate and damages,	-	-	-	95,000
				<hr/> 210,000
Total cost of Western Division, exclusive of interest	-	-	-	\$3,075,000
To which add estimated cost of grading and bridging of branch to Blairsville, 2 $\frac{3}{4}$ miles,	-	-	-	\$28,000
Superstructure,	-	-	-	22,000
				<hr/> 50,000
Total,	-	-	-	<hr/> <hr/> \$3,125,000

The whole expenditure on the Western Division to this date is \$659,998.20.

SUMMARY

OF THE COST OF THE WHOLE ROAD, INCLUDING BRANCHES TO HOLLIDAYSBURG
AND BLAIRSVILLE.

Eastern Division,	130 miles,	-	-	-	-	\$3,910,000
Mountain "	31 $\frac{1}{2}$ "	-	-	-	-	1,925,000
Western "	85 $\frac{1}{4}$ "	-	-	-	-	3,075,000
						<hr/>
Main Line,	246 $\frac{3}{4}$ "	-	-	-	-	\$8,910,000
Hollidaysburg Branch,	6 $\frac{3}{4}$ "	-	-	-	-	110,000
Blairsville	2 $\frac{3}{4}$ "	-	-	-	-	50,000
						<hr/>
Total,	-	-	256 $\frac{1}{4}$ "	-	-	\$9,070,000
Interest account,	-	-	-	-	-	610,000
						<hr/>
Total cost of Road and Branches, including interest,	-	-	-	-	-	<hr/> <hr/> \$9,680,000

Which exceeds but little the cost of the Baltimore and Ohio Railroad, between Baltimore and Cumberland—only 179 miles in length—and but about four-tenths of the estimated cost of the New York and Erie Railroad, 464 miles long.

The estimated cost of the outfit necessary, as soon as the road is finished to Pittsburgh, is \$1,400,000, which added to the cost of the road, will make the whole amount required for the work, \$11,080,000.

OF THE PROSPECTS AND BUSINESS OF THE ROAD.

The history of all well located railroads shows a progressive increase of business—from the period that they are opened for use—the net profits increasing in a greater ratio than the receipts.

The general causes which produce these favorable results are sufficiently obvious. Railroads, to a great extent, create the very business upon which they thrive—"the advantages and conveniences which they afford, collect and increase the population in their vicinity," developing the productive resources of the country within the range of their influence, calling into existence new sources of employment and wealth which, but for the quick and cheap medium of conveyance they afford to market, would remain dormant.

These productions are exchanged at distant points for other commodities, thus building up a new business to the region traversed, causing the movement of parties interested, thereby alike augmenting the travel and freights of the road.

The general activity from these influences, that is noticeable upon all properly conducted railroads, is mainly to be attributed to the knowledge and practice by their managers, of the laws which develop sources of revenue, and give animation to the business of the improvements committed to their charge.

Although the line of the Pennsylvania Railroad is not free from the evidences of its beneficial influence upon the country traversed, yet, in consequence of the violation of the laws of trade, in framing the toll sheet of the Philadelphia and Columbia Railroad, it has been impossible to give to it all the advantages which such an im-

provement, under different circumstances, is calculated to spread along its route.

Why the energies and resources of the country traversed by that improvement, and the lines tributary to it, should be muffled by the antiquated notions that have heretofore governed its business, can only be accounted for from the fear that has taken possession of the public mind—to the exclusion of all other considerations—that the heavy responsibilities of the State would not justify any tampering with her sources of revenue. Happily this day is past, and it now seems appropriate to call the attention of the authorities to the modifications desired; which experience demonstrates will not only prove beneficial to the community, but also add, ultimately, to the revenues of the Commonwealth. All extraordinary charges upon the trade of the Pennsylvania Railroad, made by the State, are but taxes upon its local travel and business. Our through rates—in connection with the State improvements, or, when the road shall be finished to Pittsburgh—will not be controlled by any restrictions imposed upon the Company.

Competition with other routes must necessarily fix the charges upon our road—whether it be for travel or for freight—without reference to any taxes upon its tonnage. Hence the impolicy of a tax, the whole of which must be imposed upon the local business of the road, and borne by the citizens of the Commonwealth, of which this Company is simply made, indirectly, the tax collector.

It would not be a difficult task to satisfy any unprejudiced mind of the injustice of the tax upon the tonnage of the Pennsylvania Railroad—unless required by the necessities of the treasury of the Commonwealth—in which case it should be made a general law, alike applicable to all railroads. But as the Legislature has fixed this tax, without reference to the merits of the case, but as the

measure of protection desired for the works of the Commonwealth, any discriminations against this Company, by general regulations or otherwise, would be so manifestly unjust, that I cannot believe that the policy will be adhered to by the Canal Commissioners, when they have dispassionately considered the subject.

In my official intercourse with these gentlemen I have studiously avoided making any request for the benefit of this Company, that my judgment did not clearly sanction as that which would either conduce to the interest of both parties, or, at least, not prove injurious to the Commonwealth, and which I would not accede to, if in charge of the State improvements.

In this spirit we have asked a reduction of tolls upon the Columbia Railroad, which would enable us to turn a portion of the Juniata trade over our line, and over that work, a business which is now lost to it, in consequence of the excessive charges between Philadelphia and Columbia.

It may not be generally known, that the policy heretofore pursued by the State has driven nearly the whole Juniata trade, by the Tide water Canal, or Baltimore and Susquehanna Railroad, to a market—while a more judicious adjustment of the toll sheet would have insured a large share of it to the whole line of the State improvements, from the point shipped, to its destination.

That it is the interest of the State that our views should be met in the spirit they are advanced, will be evident, when it is shown that the tolls and taxes which will be paid to the Commonwealth on each article passing over the Pennsylvania and Columbia Railroads, will greatly exceed that now received upon the canal. Take, for instance, flour—the chief item of transportation, and it will be found that at the present rates, it will pay to the State—say from Lewistown, a point about midway between Columbia and Hollidaysburg—

97 cents per 1000 pounds if carried over our road, while on the canal it will only pay 38 cents.*—Other articles will produce like results, varying according to the distance carried on the canal.

I have that confidence in the intelligence of the Canal Board, and their appreciation of the true interests of the Commonwealth, to believe, that when they have weighed these facts, they will make the reductions necessary to secure the objects in view. In consequence of the continued ill-health of one of the members of the Board, it has been impossible to obtain their action upon this subject at an earlier date.

It is evident from the facts above stated, that as far as relates to the local trade of the Juniata, the interests of the Commonwealth, as a proprietor of public works, and this Company, are in perfect harmony, and that their co-operation must redound to the public advantage. Whether this harmony of interest exists when the through business is considered, was a matter of more difficulty to determine—but under existing circumstances, it would seem that there is no public interest calculated to disturb it.

These circumstances were doubtless weighed by the Legislature that granted the charter for the construction of this road, and influenced their determination. It must have been seen by them that their predecessors had authorized the construction of a line of improvements—at the expense of the Commonwealth—connecting the two great cities of the State, of a mixed character, the best that

*If flour should be entered from Pittsburgh to Philadelphia, to pass over the Pennsylvania Railroad, it will pay a tax to the Commonwealth of nearly 30 cents per 1000 pounds, while the toll charged by the State is only 35 cents per 1000—making the amount paid by this Company into the treasury of the Commonwealth on each 1000 pounds, 65 cents, for the use of a portion of the public works—while a transporter using the whole line pays but 35 cents.

their wisdom could then devise, which time has demonstrated to be unsuited to a competition with the great lines progressing to completion on the north and on the south of her, which, if not met by an improvement of equal character, must necessarily strip her work of all through business, and her treasury of revenue from them.

It could not have been a question with the statesmen of the Legislature that granted our charter, whether the trade should be kept upon the public works of the State; it must have been simply a question whether it should be retained within the borders of the Commonwealth.

If the Pennsylvania Railroad had not been undertaken, the through transportation by the public improvements would as certainly have yielded to the superior arteries of commerce, constructing immediately without the borders of the State, as the aboriginal occupants of the soil of Pennsylvania have, in a few years, yielded, almost without a struggle, to the superior race that landed on her shores.

Under these circumstances, the construction of the Pennsylvania Railroad became a fact—necessary to the honor and prosperity of the State—and the work which is now springing into existence under her laws, should be cherished by her citizens as a noble undertaking, destined to elevate her character abroad, and add to the wealth and intelligence of her people; breaking down the prejudices that have hitherto existed between different sections of the State, from ignorance, or misconception of their mutual interests and feelings.

Taking these views of the subject, our road cannot be looked upon as a rival to the improvements of the State for the through business, but as a coadjutor, through whose influence alone, freights will be attracted to the common termini of the respective works, and each,

according to its adaptation and ability for transportation, receive its full share.

The following condensed statement will exhibit the receipts and expenses on account of the business of the Pennsylvania Railroad, from the 1st of September, 1849 (when the road was opened to Lewistown,) to the 31st of December, 1850, 16 months:

RECEIPTS.		
From local passengers, September 1 to December 31, 1849.....	\$17,719 62	
From Philadelphia and Pittsburgh passengers, September 1 to December 31, 1849.....	6,987 70	
From mails, September 1 to December 31, 1849.....	387 15	
From freight, September 1 to December 31, 1849...	6,001 13	
		\$31,095 60
From local passengers, for 1850.....	\$96,646 86	
From Philadelphia and Pittsburgh passengers for 1850.....	72,734 05	
From mails, for 1850.....	7,257 26	
From Adams Express, for 1850.....	1,044 63	
From freight, (including Pittsburgh freight, amounting to \$26,531.51).....	78,071 74	
		255,754 54
Total receipts from business of road.....		\$286 850 14
Receipts for hauling freight on Harrisburg and Lancaster Railroad.....		17,548 79
Receipts for carrying passengers on Harrisburg and Lancaster Railroad, including Branch Road to Columbia.....		35,053 58
Total receipts.....		\$339,452 51
EXPENSES.*		
For motive power, Pennsylvania Railroad and Harrisburg and Lancaster Railroad (321,000 miles run by engines).....	\$60,147 92	
Maintenance of way, Pennsylvania Railroad.....	31,623 49	
" Passenger cars.....	3,109 35	
" Freight cars.....	1,938 58	
For conducting <i>passenger and freight</i> transportation, including tolls on State Roads, and Harrisburg and Lancaster Railroad, and expenses over same, also freight and tolls on Western Division of Pennsylvania Canal.....	75,424 94	
		172,244 28
Leaving net profit.....		\$167,208 23

* For details, see Statement marked L L.

The expenses paid for motive power, conducting transportation, &c., not directly connected with the operations upon the Pennsylvania Railroad, were \$76,152.35.

Leaving the expenses of the business proper of the Pennsylvania Railroad, \$96,191.93.

For more detailed information on this subject, I refer you to the Report of the Superintendent, and the numerous statements appended to it.

These statements exhibit fully the business and expenses of the road for the period above mentioned ; but from the frequent changes in the length of the road, they do not afford data valuable for future comparisons. The road was opened for use to Lewistown, 61 miles, on the 1st of September, 1849 ; to M'Veytown, 72 miles, December 24th, of the same year ; to Shaeffer's Aqueduct, near Mount Union, 85 miles, April 1st, 1850 ; to Huntingdon, 97 miles, June 10th ; and to the Portage, 137 miles, on the 16th of September. A connection with that work, however, was not made until October.

The average length of road in use up to this date has been about 90 miles, and the average capital invested \$2,800,000, \$300,000 of which has been expended in preparations for the second track, and is for the present dormant.

In addition to the varying length of the road from time to time during the year, and the general indisposition of shippers to change their channels of transportation at once, there has been that bar to a profitable local freight business upon our road—already referred to—consisting of heavy charges and expenses in passing over the State Railroads, which will doubtless be removed or modified ; but in consequence of their existence, no conclusions can be drawn as to our future freighting business, from the operations of the road during

the past year. There is evidently immense sources of profitable employment for the work along its whole route, which only require a judicious system of tolls to develop to their fullest extent. I feel no hesitation in saying, however, that even should our road be limited by its connections with the State improvements, in its usefulness to the community, as an avenue to market, it cannot fail to yield ample profits to its stockholders from travel and such freights as will pay for the increased speed.

Without some modification in the tolls charged upon the State improvements, a profitable general through freight business is alike unattainable, until our whole line is completed to Pittsburgh. The maximum tolls—which we can only avail ourselves of by paying also over that portion of the public improvements not used—benefit us only in the item of flour, where the charge is so low that the farmers of Ohio actually pay less tolls on their produce (deducting the cost of motive power on the railroads), from Pittsburgh to Philadelphia than is paid by those residing in parts of Lancaster county to the same city.

These discriminations against the agricultural interest of the State, when fully understood by the public, it seems to me, must operate to reduce the local charges, at least to a standard corresponding with other roads carrying a heavy tonnage.

The local travel of the road has fully equalled my expectations, and it is increasing daily. The accompanying statements, marked R and S, exhibit the whole number of passengers entered at each station, from Dillerville to Hollidaysburg, amounting in the aggregate to 194,833 in sixteen months. In consequence of the frequent changes in the length of the road, before alluded to, and the different prices charged, it is impossible to reduce the account of passengers with accuracy to an equivalent through travel.

There is included in the above number of passengers 22,301½ entered to go through between Philadelphia and Pittsburgh, and 4,674½ between Harrisburg and Pittsburgh, making the whole long travel passing over our road 26,975. The through travel during the months of October and November last might have been considerably enlarged by proper connections with the Portage Railroad. These were prevented by the illness of members of the Board of Canal Commissioners, at the period it became necessary to make them, leaving no authority through whom other arrangements could be effected. The dissatisfaction caused by this state of things unjustly fell upon this Company, who were powerless to remedy the evil. The recurrence of similar difficulties have not yet been provided against, and their prevention should claim the early attention of the parties interested in the through travel.* If it is not obviated by the use of the Portage Railroad partly at night—which the increasing freighting business would seem to demand—the object may be secured in a less satisfactory manner, by changing the hours of departure of the trains from the city.

Except during a few weeks subsequent to the opening of the road to Hollidaysburg—when regularity under the circumstances would have been considered an exception to the general rule—our trains have run with as much precision as those of the oldest roads in the country, reflecting the highest credit upon the management of the Superintendent in immediate charge of the road. His report treats more at large upon this branch of the Company's service—a connection with which I have desired to be released from—and it is again referred to for further information.

I cannot conclude this report without expressing my obligations to my late associate, W. B. FOSTER, JR., with whose coöperation

* Since satisfactorily arranged between the Canal Commissioners and General Superintendent.

the Eastern Division of the road, notwithstanding the numerous drawbacks encountered, has been placed in use, at a cost below the estimate submitted to the Board. Mr. F. has left the service of the Company for that of the Commonwealth, and is now actively engaged in completing the North Branch Canal.

Of the several principal assistants and assistant engineers employed on this Division, Mr. S. KNEASS and G. R. MOWRY only remain upon it. Mr. KNEASS has been chiefly engaged with the unfinished work, and Mr. MOWRY has been placed in general charge of the repairs of the road. The others have found employment elsewhere, or been transferred to the west side of the mountain.

The Western Division, upon which there was no work done of moment previous to my last report, is now in active progress throughout its extent, under the immediate direction of my associate, EDWARD MILLER, Esq., who has had charge of the operations upon that division since my connection with the Company, and has conducted them with his accustomed ability. In the performance of the duties assigned him he has been ably seconded by his principal assistants, Messrs. LEUFFER, BARNES, CLARK, and THOMAS SEABROOK, and their junior assistants.

All of which is respectfully submitted by

Your obedient servant,

J. EDGAR THOMSON,

Chief Engineer and General Superintendent

ITEMS OF EXPENSES NOT CHARGEABLE TO THE BUSINESS PROPER
OF THE PENNSYLVANIA RAILROAD.

Tolls paid on Freight to Commonwealth.....	\$27,513 82
" " " " Harrisburg and Lancaster Railroad.....	5,727 20
Freight paid Western Division Pennsylvania Canal	2,695 45
Commissions on freight at Philadelphia, Pittsburgh, and Johnstown	5,309 88
Conductors and brakemen, estimated.....	3,300 00
Oil and tallow for cars.....	1,056 00
Repairs of Cars	1,800 00
Motive power east of Harrisburg.....	28,750 00
	<u>\$76,152 00</u>

Number of miles run by trains on

Pennsylvania Railroad..... 196,000 at cost of 16 cents per mile for
motive power.

Number of miles run by trains on Har-

risburg and Lancaster Railroad..... 125,000 at cost of 23 cents per mile for
motive power.

Total..... 321,000 at average of $18\frac{1}{2}$ cents.

REPORT OF THE SUPERINTENDENT OF TRANSPORTATION.

General Transportation Office,
Harrisburg, January 15, 1851.

To J. EDGAR THOMSON, Chief Engineer and
General Superintendent of the Pennsylvania Railroad.

In presenting the Second Annual, but First General Report of the various operations connected with the department under my charge, it appears to be proper, for the information of those who are interested, that an outline should be given of our business organization.

In February, 1849, in compliance with your instructions, I visited the railroads of New York and New England, to examine their stations, depots, shops, roads; in fact, everything connected with their business operations. In the discharge of this duty I was greatly assisted by the facilities afforded by the officers of the roads which it was my privilege to visit, for obtaining a thorough acquaintance with their systems. From the New York and Erie, the Boston and Providence, Providence and Worcester, Fitchburg, Western, and several others, complete sets of forms and freight lists were procured, and having thus attained the object of my mission, I returned, and by your directions proceeded to arrange a system which would be adapted to the business of our road.

A careful comparison of the various methods in general use satisfied me that no other mode of keeping accounts exceeded that of the Georgia Railroad in simplicity, and with such modification as would adapt it to our peculiar situation no better could be devised; it was therefore assumed as the basis of the business organization which has met your approbation, and in accordance with which our operations have been conducted.

The organization referred to divides the business of the road into four different departments, viz., Conducting Transportation, Maintenance of Way, Motive Power, and Maintenance of Cars—which have been under the immediate charge of the Superintendent of Transportation—as well as the accounts of the general office, and the disbursements required for materials and labor in conducting the operations of the line.

CONDUCTING TRANSPORTATION.

This department, as its name implies, embraces the arrangements for the transportation of passengers, freight, mails, &c., with the accounts of the various agencies. In its original organization two officers of equal grade were allowed to each passenger train, a conductor and collector; but the practical inconvenience and expense connected with this mode caused it to be set aside. The plan now pursued consists in selling all the tickets, if possible, at the local agencies, and leaving few, if any, to be sold by the conductors in cars.

Freight trains are under the charge of a conductor, who is required to remain with his train from the time of leaving Philadelphia until it returns, and must make a report of each trip to the Superintendent, in accordance with the prescribed rules. As many brakemen are allowed to the train as circumstances require.

On the Pennsylvania Railroad one brakeman to six double or twelve single cars is considered a full allowance. On the State Road one to five single cars is required. The most economical way of satisfying the demands of the State consists in keeping two extra parties of brakemen on the Columbia Railroad and an equal number on the Portage Road, whose duties are confined to these roads exclusively. They are each under the charge of a suitable officer, who is authorized to increase or reduce the number in proportion to the requirement of the service. These parties also act as wreckers to remove broken cars and secure the loading from injury.

The State Road being a public highway, and the cars owned entirely by individuals, different arrangements have been found necessary from those which exist on well managed company roads; and numerous regulations and frequent directions from Collectors, Weighmasters, Despatchers, Car and Cargo Inspectors, and other officers, must be complied with, upon failure of which, from ignorance of the rules, from inability to comply, or other causes, cars are left, loading taken out, and fines imposed. The annoyance from these causes has not, however, been very serious, and in general a courteous and accommodating spirit has been manifested by the officers of the road.

The high rates, the inconvenience and expenses attending the transshipment of freight and its transportation over the State Road, have no doubt been the principal sources of business to the Tidewater Canal.

When all the items which constitute the expenses of transportation are added to the tolls upon the State Road, the charge becomes excessive, and greatly exceeds the charges upon the Pennsylvania Railroad and other roads owned and operated by companies. As an evidence of this fact the following calculation is submitted :

EXPENSES OF CONDUCTING TRANSPORTATION ON THE STATE IMPROVEMENTS.

The tolls on the Columbia and Portage Railroads have heretofore constituted four separate and distinct charges. These are—

Road toll on cargo. Motive power toll on cargo.

Road toll on car. Motive power toll on car.

The last three of these items are independent of the kind of articles carried, and constitute, therefore, fixed charges which can readily be reduced to a certain amount per 1,000 pounds per mile.

The result of a careful calculation of expenses on each section of the State improvements is as follows, assuming an average load of 6,600 pounds for each double car, which corresponds very nearly with our last year's average on westward freight.*

Columbia Railroad per mile.

	Mills.
Motive power and road wheel tolls per 1,000 pounds, - - -	6.0
Cargo tolls, motive power, - - - - -	4.0
Cars, oil, and conductors, including repairs, - - - - -	4.5
Average commissions, - - - - -	3.0
City Railroad tolls and hauling cars with horse power, - - -	0.5
Loss and damage, - - - - -	1.0
Superintendence and incidentals, - - - - -	1.0
Total fixed charges per mile, - - - - -	20.0
Road cargo toll variable.	

Allegheny Portage Railroad.

	Mills.
Motive power and road wheel toll, per 1,000 pounds, - - -	9.0
Motive power toll on cargo, - - - - -	10.0
Cars, oil, and conductor, - - - - -	9.0
Commissions, extra agents, &c., - - - - -	6.0
Loss and damage, - - - - -	1.0
Superintendence and incidentals, - - - - -	1.0
Total fixed charges, - - - - -	36.0
Road cargo toll variable.	

* An increase of load would reduce the cost of transportation, but it is impossible, particularly with local freight, to preserve an equilibrium. Many of the cars return empty.

The same time is required to pass over the Portage Road and return, as on the Columbia Railroad; the expense of cars, oil, and conductors, per mile, is consequently double. From three to four days are usually required, although the length of road is but 36 miles.

Expenses on Western Division Pennsylvania Canal.

	Mills.
Boat toll, per 1.000 pounds, per mile, - - - - -	0.6
Freight at contract rates, - - - - -	7.9
Commissions, - - - - -	3.0
Loss and damage, - - - - -	1.0
Incidentals and superintendence, - - - - -	1.0
Total fixed charges, - - - - -	<u>13.5</u>
Cargo toll variable.	

A calculation of the expenses of transportation on each portion of the State works, at the rates published in the last toll sheet, which are almost identical with the present one, will give the following result in cents and mills per 100 pounds, for the whole length of the improvements used by the Pennsylvania Railroad Company.

Dry goods, -	21.7 on Columbia Railroad; 16.9 on Portage; 22.3 on Canal.
Flour, -	16.1 " 14.0 " 18.2 "
Bacon, -	17.5 " 14.7 " 17.1 "
Iron, -	15.4 " 14.0 " 19.2 "
Groceries, -	19.6 " 15.8 " 20.3 "

STATE TAXES.

The tax to the State on all articles passing over twenty miles on the Pennsylvania Railroad, is 3 mills per ton per mile. The same average tax is paid on the Lancaster and Harrisburg Railroad; there are therefore 174 miles now in use, on which tax is paid amounting to $2\frac{6}{10}$ cents per 100 pounds, or 52 cents per ton on the whole road.

The amounts paid to the State, or chargeable to expenses of conducting transportation on the three sections of the Main Line used by us, including State tax, are—

	Dry goods.	Flour.	Bacon.	Iron.	Groceries.
From Philadelphia to Hollidaysburg	24.3	18.7	20.1	18.0	22.2
From Johnstown.....	41.2	32.7	34.8	32.0	38.0
From Pittsburgh.....	63.5	50.9	51.9	51.2	58.3

Comparison of rates—reduced to a standard of 100 miles for convenience of comparison.

	Dry Goods.	Flour.	Bacon.	Iron.	Groceries.
Columbia Railroad without State tax.....	31.0	23.0	25.0	22.0	28.0
Allegheny Portage Railroad.....	47.0	34.5	41.0	39.0	44.0
Baltimore and Ohio	19.7	14.3	14.3	11.4	14.3
Pennsylvania Railroad, per 100 miles, deducting from regular charges to Hollidaysburg the State Road expenses and taxes.....	26.4	12.4	15.5	13.0	18.9
Pennsylvania Railroad, on Pittsburgh freight making similar deductions.....	27.0	00.0	4.7	5.1	15.4

In these calculations the whole charges are assumed to be 110, 85, 60 and 50 cents for the four classes, which were the rates last Fall.

The new toll sheet allows a maximum on dry goods which makes a difference of 13 cents in favor of those who use the whole extent of the Main Line from Philadelphia to Pittsburgh, but it is of no advantage to the Pennsylvania Railroad Company.

The expenses connected with the transportation of dry goods over that portion of the State improvements used by the Pennsylvania Railroad Company, amount to 64 cents per 100 lbs. ; at a charge of \$1 per 100 pounds, there will remain 36 cents for the road from Dillerville to Hollidaysburg, 174 miles. The cost of transportation on the Columbia Railroad, everything included, amounts to 22 cents for 71 miles. The proportion of the Pennsylvania Railroad, for same distance, is only 14½ cents. The expense on the Columbia Railroad is therefore 50 per cent. more than on the Pennsylvania Railroad.

If a comparison be made of road, motive power, and wheel tolls, omitting all other items, and reduced to an equal distance of 71 miles, the result will be :—

On Columbia Railroad,	-	-	-	-	-	14.2 cents.
On Pennsylvania Railroad,	-	-	-	-	-	10.1 "

A calculation on the cost of flour from Lewistown to Philadelphia, gives the following results :—

Expenses on Columbia Railroad, 71 miles, per 100 pounds,	-	17.8 cents.
Whole charge from Philadelphia to Lewistown, -	-	27.0 "
Proportion of Pennsylvania Railroad, 97 miles, -	-	9.20 "
Proportion for a distance of 71 miles, -	-	6.7 "

Consequently the expenses on the Columbia Railroad, including city tolls, hauling, &c., amount to nearly three times as much as for an equal distance on Pennsylvania Railroad, and the small balance which is left after paying expenses on State Road, is not sufficient to cover the cost of transportation on the remainder of the route.

The new toll sheet for the State works for 1851, makes no material change in the rates of freight, except the allowance of the maximum previously alluded to. Juniata freight must continue to find its

way to maket by the Tide-water and Chesapeake and Delaware Canals.

If six mills per 1000 pounds per mile be assumed as the average cargo toll on the Columbia Railroad, the whole toll paid the State will be 16 mills, which, for 71 miles from Philadelphia to Dillerville, will give 1136 mills per 1000 pounds over the road. On the canal the boat and cargo tolls will not average more than $5\frac{1}{2}$ mills per 1000 pounds per mile, and consequently it would require more than 200 miles of canal to pay the same toll to the State that is received on the Columbia Railroad. It is clear, therefore, that if all Juniata freight should be carried in cars to Philadelphia over the Pennsylvania Railroad, the receipts of the Commonwealth, so far from suffering reduction, would be increased.

REMARKS.

A comparison of the results that have been obtained, shows that after deducting the proportion of the expenses chargeable to the State Road and Canal, and the State tax on tonnage, there remains for the Pennsylvania Railroad less than one-half the State Road proportion, except on dry goods and groceries, where the State Road expenses exceed ours by about $30\frac{1}{2}$ per cent. on dry goods, and 66 per cent. on groceries. The average expenses on the Columbia Railroad are double those on the Baltimore and Ohio Railroad, and on the Portage they are three times as great for the same distance. The Pennsylvania Railroad Company, by carrying flour at 50 cents per 100 pounds from Pittsburgh, has not received one cent for transportation over their road, the whole amount being absorbed for State charges and expenses. At \$1 per barrel, there would be considerable loss.

Complaints are frequently made of the so-called extravagant charges on the Pennsylvania Railroad, and by estimating tolls

from the Canal Commissioners' list, without allowing for cars, conductors, commissions, and all other items which swell the transportation expenses, it might appear that we receive a large proportion, when, in fact, we get almost nothing. I submitted on a former occasion a calculation to show that, estimating our tolls as worth as much per mile as on the State Road, the loss in carrying sheep from Lewistown to Philadelphia was over \$10 per car load; but this evil has been removed, as far as live stock is concerned, by a late reduction on the State Road.

That other and very considerable reductions should be made is evident, if trade is to be diverted from its present channel. We have no margin on local or Juniata freight upon which a further reduction can be made by us, and the equitable proportion between the Pennsylvania Railroad and the Columbia Railroad, on freight passing over both, is entirely reversed. A road forming the terminus of a main line, and receiving accessions from numerous branches, can carry at a much lower rate per mile than any of its tributaries; and this principle has been fully recognized in the adjustment of railroad proportions wherever equity is observed.

We have reason to congratulate ourselves that from the commencement of operations on the road to the present time only one serious accident has occurred. This was a collision resulting from direct violation of instructions on the part of a conductor in whom we had every reason to repose confidence. This collision has been the only one, properly so called, that has occurred upon the road—a fact, perhaps, without precedent in the early history of any other extensive single track railroad, operating for a great part of the time eight trains daily.

From the opening of the road until its completion to Hollidaysburg, the various operations of the line were conducted with far

more regularity than could reasonably have been anticipated; but at this time a break in the Pennsylvania Canal below Middletown, threw the whole business of the canal for six successive weeks over the Lancaster Railroad, the transshipments being made at Harrisburg instead of Columbia. The order of the Pennsylvania Railroad Board requiring the establishment of a through freight line to Pittsburgh, demanded immediate attention, and difficulty was experienced in making satisfactory arrangements with collectors on State works for the payment of tolls. The unfinished condition of the road and fixtures above Tyrone, in consequence of a desire to put it in use before the close of navigation, and lastly the arrangements necessary for operating the Columbia Railroad line, caused such a sudden accumulation of business that several temporary irregularities were unavoidable.

These evils, however, were of short duration, and order and regularity were soon established without the occurrence of any accident.

Perhaps the greatest impediment to the satisfactory operation of a new road arises from the fact that the numerous offices must necessarily be filled with inexperienced men.

This is absolutely unavoidable; it is not to be supposed that men occupying satisfactory positions on other roads will leave them unless by the influence of some stronger inducement than is offered them at home. In several instances applicants from other roads were appointed, but afterwards declined in consequence of a considerable increase of salary which was made to retain them.

The great length of road brought into operation in the short space of one year, nearly 200 miles, and our peculiar position between the Columbia Railroad on the one side and the Portage on the other, with the necessity of conforming to arrangements, often

incompatible with each other, on both, and without any control of either, adds to the difficulty of management to an extent which cannot easily be realized by any one not familiar with the practical operation of a long single track railroad.

The passenger receipts of the last year were no doubt greatly reduced by the want of a proper connection at Hollidaysburg with the morning line from Philadelphia. For a period of several months, owing probably to the illness of the President and the necessary absence of other members of the Board, the action of the Canal Commissioners could not be obtained, and the Superintendent of the Portage Road was not authorized to keep up the forces at the planes after night. As a consequence of this unexpected condition of things, westward passengers arriving in the evening at Hollidaysburg, were compelled to remain until next morning. Next Spring we have reason to believe that this difficulty will not exist, the business of the road will require a relay of hands at the planes, and passenger trains will probably experience no detention.*

Notwithstanding this most unfortunate condition of things, the receipts of the road for the months of October and November, after the opening to Hollidaysburg, far exceeded my expectations, paying not only all the expenses, but eight per cent. in addition, on the whole cost of the road, fixtures, cars, machinery, and interest. The profits were derived principally from passengers; the excess of freight receipts beyond expenses being but very slight. This result was as unexpected to me as it must be gratifying to the friends of the road, and demonstrates beyond the possibility of doubt the great value of the improvement when completed and freed from the clogs and hindrances which now impair its usefulness and reduce its revenues.

* This expectation has been realized—passengers cross the Portage Road without much detention.

The calculations which have been submitted and the results obtained, indicate clearly our true policy in the management of the road, which is to direct attention to the transportation of passengers and valuable freight, confining our eastward tonnage chiefly to the back loading required for the payment of tolls. To attempt a competition in heavy freights, at rates which cannot be made profitable without an abatement of State tolls, seems to be very impolitic.

I would also state in this connection that regularity and certainty of connections are of more importance than high speed in the transportation of passengers. An average rate of twenty-six miles per hour when running, or thirty miles as a maximum, is as much as should for some time be attempted on our road with the fastest trains. If a schedule is calculated at higher rates, lost time from detentions on other roads, cannot be regained without a velocity that is highly detrimental to the road and machinery, and increases the liability to accident from various causes. The safety of passengers, and the reputation of the road for exemption from accidents, deserve attention in preference to the never to be satisfied demands for higher speed.

MAINTENANCE OF WAY.

The Maintenance of Way Department is under the immediate charge of a resident engineer and three assistants, called supervisors, who have attended to the repairs of track, bridges, supplies of fuel and water, and the disbursements connected with this department. The whole line is sub-divided into sections of five miles, on each of which is a foreman and two hands for ordinary repairs, with such additional force as circumstances may require. There is also on each division an extra hand, who performs the duties of watchman, and passes over the portion of line under his charge, in a hand-car, in advance of the passenger train.

The precautions which have been observed have either led to the timely discovery and removal of obstructions that have fallen or been placed upon the track, or they have been thrown off by the fender or cow-catcher with which every engine is supplied. In no instance has an accident occurred from this cause.

MOTIVE POWER.

The Motive Power Department has been principally under the charge of the foreman of the Harrisburg shop, under such general regulations as were furnished to him. Considerable difficulty has been experienced from the extent of the road—193 miles—operated from a single shop, and that of sufficient capacity only for a small road; but the accommodations are now better, and will soon be sufficient for the business.

MAINTENANCE OF CARS.

But few accidents resulting in injury to cars have occurred on the Pennsylvania Railroad; most of the damage has been done on the other roads over which our cars have passed. The suspension in which we were held in consequence of the unsettled condition of affairs with the Lancaster Company, the failure of negotiations at Lancaster for ground for the erection of buildings, and the delay in widening the track on the State Road, have prevented us from erecting suitable sheds for the protection of our passenger cars. The tunnel on the Lancaster Railroad is also indirectly the cause of much real and more apparent injury to the cars, as well a source of additional expense in the Motive Power Department. The height is not sufficient to allow pipes of proper size to pass through. Low pipes upon the engines cover the cars with fine dust, which in two or three days cuts off the varnish, and greatly injures their appearance; at the same time the draft of the engines

is impaired, and their power of generating steam diminished. An alteration to obviate this evil is very necessary.

ACCOUNTS.

Without entering into any detailed explanation of the system of Accounts, it is sufficient to state that the arrangements are such that any error committed by conductors or station agents is almost certain of detection at the General Transportation Office, where all daily, weekly, and monthly reports are examined, and the results reported to the Treasurer for comparison with the statements of deposits made in local banks to his credit. No cash is received at the general office; its business consists in regulating all the other offices on the line, and in securing accuracy and uniformity in their accounts. Records are also kept at this office of receipts, disbursements, purchases, consumption of stores, performance of engines, and all other operations connected with the business of the road. From these records have been prepared the tables which accompany this report.

Relative Cost of Motive Power over the Lancaster and Harrisburg, and Pennsylvania Railroads.

From a statement prepared in September last, it appears that a considerable difference exists in the cost of motive power on these roads, arising from the following circumstances :

- 1st. The heavier grades of the Lancaster Railroad.
- 2d. The greater unevenness of the surface.
- 3d. The smaller number of miles per trip performed daily.
- 4th. The fuel consumed in standing and in moving cars at Diller-ville.
- 5th. The much higher price of fuel on the Lancaster Road.

6th. The greater injury to engines from sand and mud thrown upon the machinery by the road not being ballasted.

7th. The expenses of pumping water.

After a careful examination of each of these causes of difference, and calculations in detail, it appeared that the motive power expenses per mile, on the Pennsylvania Railroad, were 16 cents, and on the Lancaster and Harrisburg 23 cents, making a difference of 7 cents over the cost on the Pennsylvania Railroad. Had the freight been sent by the way of Columbia the difference would have been less.

In conclusion, I would beg leave to express my sense of obligation for the benefit which I have derived from your long experience in the practical and economical management of railroads, and for the cheerfulness with which you have interchanged opinions in regard to the proper arrangements for the successful operation of the great work with which we are connected. I trust, that in assuming the duties of General Superintendent from which you have withdrawn, I may not lose these advantages, but may continue to enjoy the benefit of your counsel in matters of importance. In accordance with that policy which has been so eminently successful on the Georgia Railroad, and which from the nature of things cannot fail to produce satisfactory results elsewhere, it will be my constant effort to reduce the expenses in every department to a minimum, and on the other hand to increase the profitable receipts of the road by the encouragement of transportation in such articles as will yield remunerating returns. In the hope that the policy here indicated will meet the approbation of the Board, this report, with accompanying documents, is very respectfully submitted.

H. HAUPT,

Superintendent of Transportation.

(R) Monthly Statement of the number of Westward Passengers entered at each Station on the Pennsylvania Railroad and Harrisburg and Lancaster Railroad.

Stations.	Sept.	Oct.	Nov.	Dec.	Total.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Whole total.
2 Dillerville.....	1,858	3,011	2,238	7,107	2,227	2,008	3,216	4,315	3,898	3,308	3,416	3,574½	4,262	4,251½	3,765½	2,245½	40,516	47,623
3 Kaufman's.....	3	9	15	4	1	8	8	.....	.....	2	6	1	1	.....	9	16	31
4 Landville.....	2	9	9	6	7	8	.....	.....	.....	17½	19	8	7	8½	.....	107	127
5 Chiques.....	1	12	20	4	.....	4	.....	.....	.....	.....	1	.....	.....	.....	.....	13	17
6 Mount Joy.....	35	127	119	81	133	345	433	524	174	133½	185½	161½	101½	86	88	2,466	2,717
7 Elizabethtown.....	35	94	78	207	81	157	183	135	117	85	125½	103	68	62	75	1,284½	1,491½
8 Conewago.....	11	338	333	4	253	612	1,064	913	364	355	396	353½	440	1,167½	362	66	86
9 Middletown.....	145	338	333	267	253	612	1,064	913	364	355	396	353½	440	1,167½	362	7	7,363
10 Highspire.....	13	45	29	87	25	33	118	183	26	31	37½	38	27	24	29	62½	709½
11 Harrisburg.....	1,824	1,710	1,009	719	758	736	1,324	2,299	2,247	1,091	1,160	1,114½	1,295	1,433	1,497	1,388	16,692½	21,954½
12 Rockville.....	38	34	53	28	35	96	231	304	70	43	84	57	59	92	83	1,196	1,349
13 Cove.....	28	18	26	25	97	14	6	23	6	15	18½	109	10	4	19	251½	348½
14 Duncanon.....	76	60	51	53	81	57	83	98	78	49	130	68	55	73	102	925	1,165
15 Aqueduct.....	37	41	43	20	37	133	134	214	101	71	107	87	15	113	39	1,173	1,314
16 Bally's.....	25	22	34	6	13	40	22	20	21	17	22	15	16	37	19	1,248	1,335
17 Newport.....	111	72	79	100	83	79	106	114	91	67	122	89	115	105	125	1,208	1,570
18 Millertown.....	124	113	58	32	59	112	106	114	91	67	122	89	115	105	125	1,208	1,570
19 Tuscarora.....	24	21	4	5	9	20	23	55	87	75	93	71	77	78	111	915	1,262
20 Mexico.....	28	12	18	16	15	22	20	5	32	38	25½	10	18	16	13	241½	285½
21 Perrysville.....	61	73	35	47	57	54	87	113	50	69	101½	186	245	102	95	329½	396½
22 Milfin.....	137	124	110	510	110	81	106	154	144	212	476	302	423	474	394	2,091	2,601
23 Lewistown.....	57	237	239	416	456	587	422	341	476	302	423	474	394	4,786	4,823
24 Anderson's.....	1	3	12	3	13	19	14	29	34	23	12	24	11	1,197	1,198
25 McVeyton.....	38	112	204	179	124	214	109	85	85	141½	1,595½	1,595½
26 Newt. Hamilton.....	46	71	100	164	94	69	64	49	58	114	1,489	1,489
27 Mount Union.....	175	115	243	156	181	204	228½	1,802½	1,802½
28 Meadon.....	62	63	49	13	17	16	8	298	298
29 Mill Creek.....	115	113	88½	67	77	78	133	668½	668½
30 Huntington.....	293	521	741	593½	2,060½	2,060½
31 Peterson's.....	26	83	100	153	362	362
32 Spruce Creek.....	72	184	219	407	892	892
33 Tyrone.....	98	180	179	363	761	761
34 Fostoria.....	32	78	91	163	364	364
35 Altoona.....	58	114	166	175	513	513
Amounts.....	2,833	4,403	5,160	4,062	16,158	4,177	3,982	6,959	10,003	10,028	6,766	6,649	7,501	8,333	9,133	10,348½	7,926	91,897	108,065

(S) Monthly Statement of the number of Eastward Passengers entered at each Station on the Pennsylvania Railroad and Harrisburg and Lancaster Railroad.

Stations.	Sept.	Oct.	Nov.	Dec.	Total 1849.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total 1850.	Total for 18 months.	
36 Hollidaysburg.....															510	1,919	1,895	1,685	6,049	6,049
35 Altoona.....															66	132	135	191	524	524
34 Fosteria.....															36	83	101	119	339	339
33 Tyrone.....															105	133	211	289	738	738
32 Spruce Creek.....															139	199	337	368	1,043	1,043
31 Petersburg.....															101	145	321	274	841	841
30 Huntingdon.....											1,356	1,636	1,751	1,351	422	507	446	7,469	7,469	
29 Mill Creek.....											93	67	105	60	42	43	35	435	435	
28 Mapleton.....											33	54	52	18	22	20	11	190	190	
27 Mount Union.....											375	84	77	73	59	64	126	4,598	4,598	
26 Newton Hamilton.....											1,456			86	78	79	95	1,015	1,015	
25 McVeyton.....											1,456			171	111	64	292	3,597	3,597	
24 Anderson's.....											29	132	172	160	163	198	192	3,777	3,777	
23 Lewistown.....											615	234	264	170	311	168	194	6,444	6,444	
22 Mifflin.....											24	24	24	43	19	14	15	377	377	
21 Perryville.....											48	519	512	485	412	568	559	732	715	
20 Mexico.....											115	166	147	124	168	125	186	1,614	1,614	
19 Tuscarora.....											56	62	34	71	66	56	32	37	594	594
18 Millerstown.....											40	40	56	34	71	66	56	32	37	
17 Newport.....											25	27	25	14	20	28	23	388	388	
16 Bally's.....											25	27	25	14	20	28	23	388	388	
15 Aqueduct.....											102	108	113	91	59	98	84	75	257	257
14 Duncannon.....											131	113	115	106	153	151	147	1,469	1,469	
13 Cove.....											131	113	115	106	153	151	147	1,469	1,469	
12 Rockville.....											8	13	17	13	20	56	22	18	284	284
11 Harrisburg.....											282	584	468	544	314	406	531	2,122	4,490	
10 Highspire.....											236	472	283	247	387	232	230	3,069	3,942	
9 Conowingo.....											171	218	236	472	387	232	230	3,069	3,942	
8 Elizabethtown.....											24	17	21	21	35	19	10	299	377	
7 Mount Joy.....											76	147	196	119	136	50	128	1,253	1,635	
6 Chiques.....											1,557	1,471	948	1,790	1,406	1,281	1,549	18,565	21,985	
5 Landisville.....											1,557	1,471	948	1,790	1,406	1,281	1,549	18,565	21,985	
4 Landisville.....											152	136	165	147	176	179	135	2,653	2,985	
3 Kauffman's.....											25	35	27	28	42	17	13	2,054	2,370	
Amounts.....	2,060	3,119	3,799	3,661	12,639	4,149	3,590	5,373	6,675	6,373	5,965	5,859	6,264	6,990	7,574	7,174	8,154	74,139	86,778	

(LL) *Statement of Expenses in detail of Pennsylvania Railroad, from
September 1st, 1849, to January 1st, 1851.*

MAINTENANCE OF WAY.		
To Items of account as follows:		
Foremen and laborers	\$28,639 50	
Superintendence	1,600 00	
Repairs of bridges	134 39	
Tool account	751 62	
Supervisors	565 00	
Cross ties and sills	34 00	
Road and hand car	12 00	
Incidental	486 98	
		\$31,623 49
MOTIVE POWER.		
To Shop repairs		
Wood consumed	\$43 94	
Cotton waste	25,552 86	
Oil and tallow	419 01	
Expenses of water stations	4,574 79	
Superintendence	1,370 86	
Engineers	500 00	
Tools	8,795 42	
Firemen	5 00	
Laborers	4,379 26	
Coal	1,673 64	
Shop rent	547 45	
Repairs of engines and tender	479 08	
Incidental	11,409 16	
	397 45	
		\$60,147 92
MAINTENANCE OF CARS.		
To Repairs of passenger cars		
Repairs of freight cars	\$3,109 35	
	1,938 58	
		\$5,047 93
CONDUCTING TRANSPORTATION.		
To Wages of laborers, brakemen, &c.		
Loss and damage	\$7,456 83	
Stationery and printing	291 78	
Clerks	1,560 33	
Superintendence	2,139 49	
Oil and tallow	1,330 00	
Station agents	1,892 75	
State tolls	9,547 49	
Harrisburg and Lancaster Railroad tolls	27,513 82	
Advertising	5,727 20	
Depot rent	345 00	
State tax	678 11	
Canal freight	2,114 74	
Conductors	2,695 45	
Incidental	8,347 97	
	3,783 98	
		\$75,424 94

Names of engines.	Names of builders.	When placed on road.	No. of drivers.	Size of drivers.	Miles run with passengers.	Miles run with freight.	Total miles.	Cost of repairs.	Cost per 100 miles run.			Total expense, including interest per 100 miles run.	Weight.	Weight on drivers.
									Repairs.	Tallow, oil and waste.	Fuel.			
Allegheny.....	M. W. Baldwin....	July 9, 1850..	4	4 6	13,579	2,125	15,704	\$187 80%	\$1 19%	\$0 72%	\$5 42	\$7 70%	45,275	25,823
Armstrong.....	"	Dec. 22, 1850..	4	6 0	1,127	72	1,199	71 36%	1 48%	72	5 84	8 44	38,675	22,875
Beaver.....	"	Oct. 10, 1850..	4	3 6	144	4,652	4,796	479 94%	1 63%	1 24%	11 80	17 68%	43,350	43,350
Blair.....	"	Sept. 23, 1849..	8	6 0	20,351	3,132	23,483	263 12%	1 12	92	5 43	9 75%	48,150	21,000
Cambria.....	Norris & Brother..	Jan. 22, 1850..	4	4 6	990	6,713	7,703	180 44%	2 34%	1 04	6 19	8 98	40,825	25,320
Columbia.....	M. W. Baldwin....	Sept. 18, 1850..	4	4 6	1,430	6,402	7,832	150 13%	1 91%	84%	7 33	12 76%	44,800	25,400
Clinton.....	"	Sept. 5, 1850..	4	4 6	8,198	1,880	9,278	158 37%	1 70%	1 42%	7 11	12 26%	44,800	25,400
Clifton.....	"	July 22, 1850..	4	4 6	641	812	1,453	28 54	1 96%	84	6 62	11 21%	44,800	25,400
Centre.....	"	Dec. 9, 1850..	4	4 6	128	13,162	13,290	275 61	2 07%	90%	4 88	9 47	23,350	14,600
Clay.....	Norris & Brother..	Oct. 16, 1849..	2	4 0	128	13,298	13,298	124 58	3 77%	1 07	17 69	22 53%	50,975	50,975
Dauphin.....	M. W. Baldwin....	Nov. 5, 1849..	8	3 7	1,993	4,450	6,443	75 87%	1 17%	1 15	9 43	13 30%	44,800	25,400
Eric.....	"	Oct. 7, 1850..	4	4 6	1,988	4,593	6,581	54 49%	4 77	91%	5 04	12 51%	30,650	16,750
Elk.....	"	Oct. 16, 1850..	4	4 6	18,489	3,482	21,971	1,047 55	2 78	98	5 97	11 82%	45,275	25,825
Huntingdon.....	"	Oct. 16, 1849..	4	4 6	20,298	3,440	23,738	659 50%	2 33%	88	6 79	10 55%	23,900	12,000
Harrisburg.....	"	Nov. 16, 1849..	4	4 6	432	7,193	7,625	94 43	1 82%	89%	5 13	9 01	48,750	21,000
Indiana.....	"	Oct. 16, 1849..	2	6 0	29,468	36	29,504	467 22	1 83%	86	5 74	8 88%	45,275	25,825
Junata.....	"	Nov. 2, 1849..	4	4 6	31,999	6,774	38,773	362 41	3 93%	93%	4 59	9 41%	47,800	21,000
Mifflin.....	"	Sept. 1, 1849..	4	6 0	29,814	91	29,905	592 65	3 08%	83%	3 88	10 21%	24,295	12,000
Pennose.....	"	Oct. 16, 1849..	2	4 6	512	7,809	8,321	302 36	1 93%	84%	4 95	13 49	50,975	50,975
Perry.....	"	Jan. 10, 1850..	3	7 0	36	1,642	1,678	56 86	3 30	2 84	4 05	61 45	23,250	14,600
Porter.....	Norris & Brother..	Oct. 16, 1849..	2	4 6	192	1,036	1,228	407 69	33 20	2 84	4 95	10 63%	44,800	25,400
Wenango.....	M. W. Baldwin....	Oct. 2, 1850..	4	4 6	4,968	3,494	4,920	29 01%	17 70	84%	6 87	8 88	38,675	22,875
Washington.....	"	Nov. 25, 1850..	4	4 6	740	36	5,004	23 01%	4 77	90	9 43	17 85	34,675	24,675
Westmoreland.....	"	Oct. 16, 1849..	6	3 6	740	14,284	15,024	717 03	4 77	90	9 43	17 85	34,675	24,675
Westmoreland.....	"	Sept. 7, 1850..	8	3 7	1,367	1,367	1,367	56 58%	4 13%	2 56%	15 56	22 65%	50,975	50,975
Total.....					219,824	101,175	320,939							

