

complete the road, owing to a vast increase of quantities over the first estimate. A similar increase would carry the cost of the Louisville and Nashville Railroad to more than \$11,000,000, or \$60,000 per mile.

The following is a summary of gradients of the Road.

Level.....	43.79 miles
10 feet and under.....	10.62 "
From 10 to 20 feet.....	30.99 "
" 20 to 30 feet.....	23.61 "
" 30 to 40 feet.....	19.18 "
" 40 to 50 feet.....	18.50 "
" 50 to 60 feet.....	26.16 "
" 60 to 70 feet.....	12.65 "

Total.....	185½
Total rise going south.....	2,514 feet
Total rise going north.....	2,554 "

Total rise and fall..... 5,068 feet

The total curvature is 4,127 degrees.

The total means provided are as follows:

Stock sub. by the City of Nashville	\$984,600
" " " County of Hardin, Ky.	300,000
" " " Warren, "	300,000
" " " Hart, "	100,000
" " " Simpson "	100,000
" " " Davidson, Ten.	300,000
" " " Sumner, "	300,000
" " " Individuals,	944,100

Total..... \$3,3280,700

The balance to be raised by an issue of mortgage bonds.

The construction of the above is eminently called for, both by the wants of the people upon its line, and of the whole country. There is no new project at whose success we should more rejoice. We cannot help expressing our opinion, however, that the Company have committed two blunders, which will materially interfere with its success—the adoption of the 6 feet Gauge, and the abandonment of the route by way of Glasgow. For the introduction of a new gauge into Kentucky, there is no apology. Though the measure may be a popular one there, it will effectually cut off the project from any assistance from this quarter. The people of New York are not going to put their money into a work, which adopts the most effectual measures possible of driving from, instead of attracting business to itself, and of fostering the construction of rival lines. Whatever effect the clap-trap of wide gauge may have in Kentucky, it won't take out of it. If the people of that State are prepared to build their own road, with their own money, they may commit just such follies as suit them; but they must not hope to palm them off upon others.

Another mistake committed is in the location of the road, by which Glasgow is avoided. There is to be a Railroad from Cincinnati to Nashville, as well as from Louisville. The Cincinnati line has already reached Lexington, a distance of 100 miles and is well advanced toward Dansville, some 35 miles further. The prolongation of this line upon the natural and convenient route, is through Glasgow. This place which is 80 miles distant from Nashville, is also on the route of the shortest line from Louisville to Nashville. The profiles of both routes shew the one by way of Glasgow, to be a little less favorable in the matter of grades, than the one adopted by the Louisville Company, but the former is shorter, and we presume, cheaper.—We think it altogether probable, many equally

favorable grades might be found. The evidence furnished by the above report, taken in connection with the Cincinnati line, shows that the Glasgow route should have been adopted. One road from Glasgow to Nashville might have been made common to both lines, and the construction of some 80 miles, and the expenditure of over \$3,000,000 might have been saved. The public would then have had one profitable road, instead of two unprofitable ones. As before stated, we do not wish to interfere with Kentucky notions of propriety, but should the Louisville Company ask to make New Yorkers participants of their follies, they will find us objecting most emphatically.

For the American Railroad Journal.
Car Ventilator.

I have just been reading in your last issue "Waterbury & Atwood's mode of car ventilation." As an old experimenter in "dusters," I am naturally interested in everything of the kind. As a traveler, passing over six hundred miles of road in a week, and every week, none can appreciate better than myself all improvements in excluding dust from the interior of a train; but I must confess that, in spite of the certificates of the *Navigatuck* train to the contrary, the invention of a mode to free cars from dust, and ventilate them at the same time, is yet in the future. As regards Messrs. W. & A.'s mode: suppose you are seated in the 8th car of a train, all the air-currents which pass you are charged with the odors of the seven cars ahead. All the effluvia arising from four hundred and twenty closely packed human bodies will constitute the atmosphere which you breathe. Take a seat in the ventilator of one of our theatres on a crowded night, when all the foul breaths of the audience, and odoriference of boots and feet are passing through, and the comforts of W. & A.'s "healthy respiration" will be appreciated. The true ventilator is a misnomer when applied to such a mode. Experiments made at great expense during the summers of '52 and '53, have established the fact that injectors having a capacity to each car greater than that proposed in the mode under review for the whole train, have proven inadequate to create a pleasing atmosphere, and repel the dust from the least opening of the windows or doors. Even the "Paine system," which turned the whole sides of the cars into exhausters, and emptied and refilled the car thirty times in one minute with fresh air, was condemned because the cars were too hot. So, gentlemen inventors, the field is yet open; but let dear bought experience first whisper to you, never hope to ventilate a car or repel dust from its interior by the introduction of air currents, till you can make them enter with a greater velocity than that of the train's motion.

New York, July 3d, 1854. P. M. H.

The confessions of "P. M. H." are interesting, as coming from an "old Experimenter" in that line, but he will permit us to suggest, that they would be more to the purpose, if his experiments had been upon the same principle with Messrs. Waterbury & Atwood's plan. He strove to inject the air into each car separately, as we understand it, which is simply impossible, unless he can create a current as strong or a little stronger inside, than that formed outside by the onward motion of the train; while both Waterbury & Atwood, and Mr. Lancaster, by their plans, merely endeavor to ef-

fect a circulation of pure air through the train, as it passes through the atmosphere, by preparing channels for its unobstructed communication. We cannot see therefore, how the reasoning of "P. M. H." applies to these cases at all.

Port Dalhousie and Thorald Railroad.

We learn from the *St. Catharine's Post*, that the work on this important undertaking goes on most energetically. A great number of men with steam excavators, &c., are engaged at the Port Dalhousie terminus, where the deepest cutting will be required. The prospects of the speedy completion of the line are very good. The contractor is of the right stamp, and is pushing things forward with great spirit. We trust the entire road through to Lake Erie will soon be under contract.

Canandaigua and Niagara Falls R.R.

The following is the new Board of Directors of the Elmira, Canandaigua and Niagara Falls Railroad: Simeon Benjamin, Alex. S. Diven, Chas. C. Shepard; Henry B. Bennett, Wm. Antis, Amos Jones, Solomon Gillett, Henry Bradley, James Harris, Francis W. Paul, Alfred B. Field, John S. King, J. P. Giraud Foster.

Terre Haute and Alton Railroad.

At the annual meeting of the stockholders of the Terre Haute and Alton Railroad Company, held in Shelbyville on Saturday, the 24th ult, the following persons were elected Directors of said Company for the ensuing year: viz. Simeon Ryder, Robert Smith D., C. Huggins, Chas. Cruft, Samuel W. Moulton, Edwin C. Litchfield, John Stryker, William H. Russell, Electus B. Litchfield, John C. Durant, John F. A. Sanford, John B. Jervis and Hiram Sanford. At a meeting of the board held subsequently on the same day Simeon Ryder, was re-elected President and Col. O. W. Childs was elected Chief Engineer.

Lexington and Big Sandy Railroad.

At a meeting of the stockholders of the Lexington and Big Sandy Railroad, the following persons were elected Directors for the ensuing year:

- Neal McCan, Fayette.
- Ben. B. Groom, Clarke.
- Joseph Bondurant, Montgomery.
- J. M. Nesbit, Bath.
- D. K. Weis, Carter.
- Dr. Z. Cushing, Greenup.

Richard Apperson, Esq., was re-elected President of the Board.

The report of the President and Chief Engineer shows the road is in a flourishing condition, and rapidly progressing to its completion; there being upwards of 800 laborers employed on the same.

Chesapeake and Delaware Canal.

The Annual Report of the Chesapeake and Delaware Canal Company gives the receipts from tolls for the fiscal year ending May 31, 1854, at \$246,695, 02, and the expenditures at \$200, 131, 46, leaving a surplus applicable for a dividend of \$46,563, 56. In view, however, of the present financial wants of the Company, growing out of the enlargement of its locks it is recommended that no dividend be now declared. The Company also received during the year, from interests, dividends, rents, &c., the further sum of \$15,429 06, making the total yearly revenue, clear of interest and expenses, \$61,992.

The Steubenville Railroad.

The Councils of Pittsburgh have passed an ordinance subscribing \$300,000 to the Pittsburgh and Steubenville Railroad Company. This, it is said will be sufficient to secure the completion of the road, the work on which is in a great state of forwardness. We may therefore expect if the Bonds can be negotiated on reasonable terms, which is very difficult in the present state of the money market, to witness the completion of the work in the shortest possible time. It is very desirable, in a road constructed principally from the proceeds of the sale of county and city funds, that it