

proper to lay it before the Legislature of Maryland, for their consideration.

The Lackawana anthracite coal mines, at Carbondale, Pennsylvania, are $124\frac{3}{10}$ miles west of the Hudson river. They are approached by a canal which debouches at the Rondout, on the Hudson, a point 90 miles above the city of New York. This canal is 108 miles long from the Rondout to Honesdale, from which to Carbondale is $16\frac{3}{10}$ miles, by rail roads. Thus the distance from the mines at Carbondale to New York city is, by rail road $16\frac{3}{10}$ miles, by canal 108, and by the Hudson 90 miles; total $214\frac{3}{10}$ miles.

The mines are anthracite, the vein is thick, but at a considerable angle with the horizon. The coal requires blasting. Two miners get out eight tons per day, and one laborer takes it in small cars to the mouth of the mine, where it is received into the rail road cars. These small cars take about 2,500 lbs. each at a load, and the rail road cars each about $2\frac{1}{2}$ tons. The cost of mining and delivering into the rail road cars 60 cents per ton. There are about 370 men employed in mining.

The rail road has six inclined planes, the greatest inclination being 1 in 12. The plane next to the mine is worked by water power, and is 1,000 feet in length. The other five planes are worked by steam power, with engines of about 30-horse power each. Four cars are taken at on time up the planes, the return or empty cars being let down by the same process. Between the planes, or from one to another, a single horse takes five loaded cars. The ascent from the mines is about 1,000 feet, and the descent to Honesdale about the same. In descending towards Honesdale, after passing the planes, there are two *levels*, as they are termed, one of 6 and the other of 4 miles. The cars descend the first by gravity, 25 or 30 together, having other cars attached, with two horses each, to bring back the empty cars.

The grade of this level is 40 feet to the mile, and time occupied in descending is one hour. Over the second *level* a single horse takes down 5 cars, and returns with them empty. The cost over this road is 65 cents per ton; making the cost of mining and transporting to Honesdale \$1.25 per ton.

To manage the transportation on the road requires 100 men, besides 20 carpenters for repairs. The road is built on trussel work, and in some places is 40 feet above the ground. Where horse power is used, the road is bridged. This is a cheap road to construct over a rough country, but expensive and cumbrous to transport upon. Hence the necessity of so many men to manage the transportation, and carpenters to keep it in order.

The canal is 4 feet deep by 36 wide, commences at Honesdale, and has six hundred feet of lockage to Rondout. Boats carry from 30 to 32 tons, and draw, when loaded down, 36 inches.— Cost of transportation from Honesdale to Rondout, 108 miles, \$1.50 per ton. If the coal be not immediately delivered to the boats, but deposited at Honesdale, the additional cost is $12\frac{1}{2}$ cents