

view all such considerations, let me ask, will the wear and tear of three boats resting on a perfectly elastic cushion—smooth water—be equal to the wear and tear of a locomotive engine and 50 cars jolting and thumping along a railway at the rate of seven or eight miles per hour?

A steam tug with its train of six boats or more, is now actually managed in England by three men—an engineer, a conductor and a steersman. There certainly will not then be required more than three men on your canal to take charge of two boats.

On a locomotive and its train there are required an engineer, a conductor, two firemen and four breakmen—and still more to keep the train in proper command if the grades are steep.

There are needed no agents on the canal besides the ordinary superintendents and the lock-tenders.

On the London and Birmingham railway, 112 miles long, there are employed 1,395 persons, besides about 900 “waymen,” whose duty is to keep the permanent way in repair.

It is true that this is the force required for the performance of a great duty. But what is the duty of conveying 150,000 tons of freight and a million of passengers, *compared with the future transportation of the coal and iron with which the mines of Maryland are charged?*

The doubts that are thrown upon the probable extension of the coal trade of this country, remind me forcibly of the times when a famous English writer feared that they might some day have to use coal in England, “if wood be not better cherished than it is at this present,” and that “*sea coles* would be good merchandise even in the city of London, whereunto some of them had already gotten ready passage.”

The like fortune awaits the coal of Pennsylvania and Maryland; but with this difference, that a very few years in this country accomplishes the work of a European century.

This subject has extended much further than I anticipated when I commenced, though I have endeavoured to limit my remarks to the most apposite facts. I cannot well compress it within narrower compass without writing it over again, which my present engagements would not permit.

I have the honor to be,

Respectfully your obedient servant,

CHARLES ELLET, JR.

Civil Engineer.