found to be equally as conclusive, if not more so, as to the former. The universal doctrine of all writers of this day, who have drawn a contrast between railways and canals is, that a railway can be made wherever it is practicable to make a canal, but not *vice versa*. The same doctrine was also fully sustained by the examinations before this committee. The language of Mr. Strickland, who, it will be recollected, was deputed by the Pennsylvania society for the promotion of internal improvement, principally for the purpose of collecting information as to canals, is very explicit on this subject. "It will be admitted, (says he,) to be evidently cheaper to cut through a hill, or form a tunnel for the passage of a rail road, than for that of a canal. And again, there is no country, however varied its surface, but what will afford as many facilities for the execution of the one as the other. The stationary engine, and inclined plane, afford equally as simple and speedy a mode of communication between two level stages, and may be constructed with a lift of 50 feet in 1000 feet, for half the sum required to overcome the same elevation by lockage." And apart from the numerous testimonies which might be brought in aid of this doctrine, it receives full confirmation from the canal report made by General Bernard, Captain Poussin and Dr. William Howard, in 1826, in which they suggest this very mode of improvement, as best adapted to the middle section of the contemplated Chesapeake and Ohio Canal, and to the most difficult parts of the entire route of that canal, and in which they recommend to the congress of the United States, that a survey be instantly made, with a view to the construction of a railway across the country intervening between the sources of the eastern and western waters.

Besides these, the proofs from analogy will be found to be very strong, and of themselves almost equal to the removal of doubt. The difficulties which have been overcome in the construction of Rail Roads, both in England and in this country, appear from the surveys of the country through which the contemplated road is to pass, to be quite equal to any which the latter presents. In the Hetton Rail Road, which extends from the Hetton Collieries to the town of Sunderland on the river Weir, over a series of high hills, and is only seven miles and five furlongs in length, there is an ascent of 266 feet, and a series of descents equal to 546 feet, or 812 feet of elevation and depression. In speaking of this, an American traveller remarks—"Here is a practical and very striking illustration of the effect of this novel mode of transportation in a hilly and mountainous country. A sterile, broken region, hitherto nearly inaccessible, and entirely unproductive, suddenly emerges from obscurity,