

from the railway, but kept the charges so low for those actually carried by the railway, that the company, after several years' fruitless labor, were compelled to abandon the unprofitable contest; and accordingly leased their road, which had been constructed at great expense, and in superior style, to the Canal Company.

The most indifferent canal can always sustain itself, *for any sort of traffic*, against the competition of rail roads, if the contest be carried on with proper intelligence and spirit. But if men lie down on the track, they may count with considerable certainty on being crushed.

There is one important circumstance that should not be lost sight of, in any comparison that may be drawn between the canals and rail roads in competition in England, and those in this country.

The English canals are generally very small, with locks capable of passing boats of but $7\frac{1}{2}$ feet beam, and 65 or 70 feet long. The American canals, with few exceptions, are in every respect larger and better.

The English rail roads, on the other hand, are the product of the greatest effort of art, with an unlimited command of means, and are incomparably superior to any results which we have obtained, or are likely for a long time to obtain, in this country.

The pretensions which are sometimes set up for the superiority of our rail road machinery over that of the rest of the world is not, in my opinion, fully sustained.

There is no country in which machinery, of all descriptions, is better made than it is in England. But the difference between us is, that they, having unbounded means expend vast sums in the graduation of their roads; while we, with limited resources, cannot afford to bore through the hills, or cut them down, and are compelled to pass them by steeper grades. To surmount these grades we are obliged to make a different machine, and obtain the adhesion of its whole weight. To avail ourselves of the advantage of that adhesion, we work our engines under a high pressure of steam—and we sometimes burst them. In England, the laws for the protection of the lives of citizens are more rigorously enforced, and companies cannot trifle with them with the same impunity. This consideration, added to the fact that the canals take the heavy trade, and leave the rail roads but passengers and light merchandise, sufficiently explaining why their locomotives usually draw less weights. On the Stockton and Darlington Road, where the grades are favorable, and the heavy articles are not abstracted by the canals, the trains are very heavy.

In examining the railways of Belgium, which are remarkable, as well for their general success as for the economy of their administration, some opportunities were presented for inspecting, also, the condition of the canals of that country. Many of the Belgian canals, and all of the rail roads, belong to the government. They use the railways for the transportation of passengers, and the canals for the transportation of freight. It is true, that there