

is not unfavourable, and for nearly one-third of the whole distance it is what may practically be termed flat. The difficulty of passing through the highest mountainous ranges in Europe, viz : the Alps and Appenines, has not been nearly so great as supposed, nor the expense per mile at all extravagant ; the distance of course is greatly increased, but such works as the tunnel now making under Mont Cenis between France and Italy will never be repeated, for it is much less expensive to go over than under such places, and if this is the case in the Alps, what must it be in such comparatively low elevations as are met with in the West. In proof of this there are already two lines over the Alps, and two more projected from Switzerland, over the St. Gothard and Splugen. The double range of the Appenines is crossed by the railroad from Rome to Ancona, which runs for forty miles in the gorges and among the mountains of this pass ; the cost of the earthwork, bridges, and short tunnels on this section, in fact every thing excepting the permanent way, did not reach £8,000 sterling per mile (\$40,000). The permanent way was excessively costly, as the rails had to be carted all the way from Rome on the one side and Ancona on the other, and were dragged for many miles up to the places inaccessible to any carriage, two or three and sometimes one at a time, by buffaloes.

My Wooden system will remove entirely one great objection advanced by Mr. Dawson against railways, viz : That roads of communication, almost as expensive as those he proposes, must first be constructed in order to render the country accessible for the materials required on the line.

No such roads of communication would be required for the construction of a Wooden Railway ; all the materials would be found on the ground, and the commencement of the different sections would take place in, or close to, the woods furnishing the supply, and the conveyance of the materials, &c., would be over the line as it was laid. The only requisites for the construction of the