the guard-rail before the side of the widest car can strike the truss.

The importance of a substantial floor system has been very fully recognized by the railroad commissioners of Massachusetts, who have recently issued a very suggestive circular, accompanied by numerous examples of track construction for railway bridges. If this circular receives proper attention, it is sure to produce good results.

Another point which has often been neglected, is making sufficient provision to resist the force of the wind. A tornado, such as is not uncommon in this country, will exert a force of 40 pounds per square foot, which upon the side of a wooden bridge, say of 200 feet span, and 25 feet high, and boarded up as many bridges are, would amount to a lateral thrust of no less