on the railway built by English engineers in Japan are of the most simple design." He here exposes the weak point of the designers and the designs; because the proportioning of a first class railway bridge is a complicated matter, and involves more considerations than the designers of the Japanese bridges ever dreamed of.

As an evidence that my opinion concerning the Japanese bridges is of at least some value, I refer you to p. 145 of my treatise, where I state that the spans in this country are altogether too short, considering the sudden rises and the immense volumes of water in the mountain torrents. The book was hardly issued before an undeniable proof of my statement was furnished by the Karasugawa Bridge near Shinmachi, a pier of which was destroyed by a flood. If the waterway had not been so obstructed by the piers (i.e. if longer spans had been employed) the accident would not have occurred.

Your correspondent's suggestion that lateral bracing is not required because there are no whirlwinds in Japan is quite amusing, and indicates his ignorance of the subject of wind pressure. Does he think that in a typhoon the winds blow steadily in one direction?

Your correspondent will find that on p. 7 I have acknowledged the excellent condition of road-bed which is maintained on Japanese roads, nevertheless the liability of a rail breaking always exists, and such an accident is almost sure to produce a derailment. If I am not mistaken, there have been derailments on the Japanese roads, though no serious accident has resulted therefrom. The fact that derailments are uncommon is no reason for not providing for their occurrence.

If one should take place as a train is upon or approaching one of the Japanese bridges, nothing could save the structure; because the sleepers are so small and so far apart that they could not possibly carry the derailed wheels. The longitudinal wooden stringers on the Kobe and Otsu Railroad afford no better protection against loss of bridge by derailment than do the sleepers.

I would like to ask your correspondent if the British Government has done any more concerning the regulation of the strength of railway bridges, than to limit the rolling loads and intensities of working stresses. You will see by the quotation from Engineering in your issue of the 16th ult. that this is all that the Board of Trade has done for highway bridges.

If the gentleman who is "Not a Bridge Builder," instead of indulging in such bombast as that contained in the last paragraph of his communication, will read the remaining twenty-three chapters of my book and expose what he may consider objectionable in my designs, he will act to better advantage; one cannot write a review or express an opinion of any value concerning a book by reading merely the introductory chapter.

I have expected to meet with opposition to my views from English engineers in Japan, so if any other member of the profession would like to express his opinion thereon, I hope he will not refrain from so doing for fear of wounding my susceptibilities; because I am not troubled by tender feelings any more than by "mock modesty." Moreover, I feel fully equal to defending any views advanced in my book; but at the same time, if proven to be in the wrong, you will find that I am quite ready to acknowledge my error.