platform, or the resistance which it will offer to the weight of the trains; but it is submitted to the practical reader to decide, whether a flooring bound together by such girders, firmly secured at the ends to the massive abutments by staunch iron ties, and thoroughly bolted in the manner here specified, will not offer some resistance.

It will be recollected that the centre of the arch cannot descend, or yield to a weight placed there, without drawing up the flanks; and the flanks cannot rise without bending this timber framing.

Still, no estimate is made of the value of this stiffness, or of the reduction in the movement which might be expected in consequence thereof. The bridge is strong enough, and stable enough, for all the purposes of this rail-way, without counting on any collateral aid.

OF THE EFFECTS OF THE WIND.

It is not difficult to show by direct computation, based on the measured force of wind during violent storms, that no danger is to be apprehended to this structure from any such cause. But we have examples enough to spare us the trouble of the investigation.

The effect of the wind is not, as might be supposed, to produce a horizontal oscillation in the flooring. This movement is prevented by the mode of suspension, which swings the bridge in the manner of a hammock, so that it is guyed or stayed by its own weight,