The trusses being constructed upon any approved plan from turn table to adjacent abutments or piers, and proportioned as for stationary bridge spans, with the exception of the rigid lower chord as above referred to, extending across the turn table; and the tower frame erected, the rod or cable $eb$ must have section sufficient to bear a tension equal at least to half the weight of the arm $ab$, multiplied by $\frac{eb}{eg}$. The rod $fd$ will have tension determined by the disposition and amount of ballast upon the arm $cd$, as well as the weight of the arm $cd$ itself. The tension of $fd$ will generally exert less horizontal action than $eb$, and the deficiency of horizontal action must be made up by the horizontal action of $ec$ and $ah$, in order to bring the centre of pressure over the centre of the table. The horizontal action of $ef$ (equal to its full tension), must be equal to that of $eb$, less that of $ec$; or, equal to the horizontal action of $fd$.

But these several stresses are easy of calculation by modes, it is believed, clearly explained in the present work, and from such calculations the following results are readily obtained.

CLXX. Representing the constant panel weight of the arm $ab$ by $w'$, the maximum variable panel load by $w$, and $w+w'$ by $W$, as usual in this work; also, making $v = ag = ae$, and $h =$ horizontal panel width, we have the horizontal action of $eb$ equal to $5w' \times \frac{10h}{2v} = 25w' \frac{h}{v}$.

The stress of $gb$ due to a maximum gross load, in the two middle panels, equals $11W \frac{h}{v}$. That in the next panel each way, $= 9W \frac{h}{v}$, and in the next, $6\frac{1}{2}W \frac{h}{v}$, while the stress of the two remaining panels on the right, equals $4\frac{1}{2}W \frac{h}{v}$, and on the left $2\frac{1}{2}W \frac{h}{v}$, and zero, respect-