

is again progressed to the abutment by the tie $d b$, which also has upon it another panel load at b of 3000, making 6000 lbs. delivered to the end-post $d o$. The strain on this tie is, therefore, just double that on the preceding tie, or 8460 lbs., to which must be added the effect of the third panel load sustained by the vertical tie $d a$, or 4230 lbs. for the compressive strain for the inclined end-post, making a total for that post of 12,690 lbs. For the moving load alone, advancing from the left abutment, we have, when it reaches the point a , 10,000 lbs. By the law of the lever, $\frac{5}{7}$ of this is supported by the left abutment, and $\frac{1}{7}$ by the right abutment. Since the whole of this load ascends the vertical $a d$, the $\frac{1}{7}$ that goes to the right can only do so by passing down the diagonal $d b$ to the foot of the post $e b$, when the diagonals in the opposite direction progress it toward the right abutment. The strain in $d b$ from this action of the load is one of compression; but since the dead load strains this diagonal *tensively* largely in excess of this compressive effect, the latter is entirely neutralized. Advancing to each panel-point in succession with the load of 10,000 lbs., and distributing the load by the law of the lever, the strains on the various parts will be as follows, from the live load alone:

On— $o d$:	$\frac{1}{7} (6 + 5 + 4 + 3 + 2 + 1)$	$10,000 \times \frac{14}{10}$	compression	= 42,300
$a d$:	one panel load,		tension	= 10,000
$d b$:	$\frac{1}{7} (5 + 4 + 3 + 2 + 1)$	$10,000 \times \frac{14}{10}$	"	= 30,214
$e b$:	$\frac{1}{7} (4 + 3 + 2 + 1)$	10,000	compression	= 14,280
$e c$:	same as $e b$	$\times \frac{14}{10}$	tension	= 20,143