will forever exist. The second loading would now produce a deflection of 1 ½ inches instead of 2 inches, as at first, the total 1 ½ plus ¼ of an inch being precisely the amount of the original deflection. Upon removal of the load, the recovery would be 1 ½ inches, the same as before. Bridges ought always to be built with a camber or upward curvature, which camber at a minimum should not be less than the deflection caused by a maximum loading. Beyond this the amount is purely a matter of taste with the designer, it having nothing whatever to do with the strength of the work.

BRIDGE-LETTINGS.

In the matter of "Lettings," it frequently happens, that parties with the best intentions make mistakes against themselves in their award, simply from ignorance of what they really do want, and by so doing are apt to work an injustice toward competing parties, that is provocative of suspicion and ill-feeling all around. With a view to aid in a clear understanding of how bridge-lettings should be conducted, in order to secure the best results at the least cost, the following forms of invitation and specification have been prepared, in the hope that they will save well-meaning committeemen much perplexity.

While the forms recommended are brief in expression, they cover all the salient points necessary for a fair competition. The specifications are general, and should