easy, in most cases, to tell in advance that such a structure would fall if it ever happened to be heavily loaded. Hundreds of bridges are to-day standing in this country simply because they never happen to have received the load which is at any time liable to come upon them.

A few years ago an iron highway bridge at Dixon, Ill., fell, while a crowd was upon it, and killed sixty persons. The briefest inspection of that bridge by any competent engineer would have been sure to condemn it. A few years later the Ashtabula bridge upon the Lake Shore Railroad broke down under an express train, and killed over eighty passengers. The report of the committee of the Ohio Legislature appointed to investigate that disaster concluded, first, that the bridge went down under an ordinary load by