making them should receive the reward due for a valuable service rendered.

Previous to the introduction of railways, a degree of perfection had been attained in this country in the construction of timber bridges of large span, for purposes of common travel, not excelled, if equalled, elsewhere; witness, for example, the bridge over the Hudson, at Waterford, and several I might name in Vermont, Pennsylvania, and other sections of the country.

For railway use, however, something more substantial and reliable was demanded, especially when the weight of locomotives came to be increased from nine to thirty tons, and the weight and speed of trains in proportion.

The lattice plan of Mr. Town, for a time met with favor by a portion of my profession, but it was not difficult to see that it possessed less merit than a properly framed timber bridge. Of the latter, several plans have at different times been proposed and patented, all however, in the main, involving the same general principle of a truss, composed of an upper and lower line of timbers, either straight or curved, connected at intervals by vertical pieces, with diagonal braces between. These plans were all more or less the result of theoretical views and speculations, and although ingenious and possessing many excellent qualities, they wanted that perfect arrangement of parts which actual experiment and trial could alone demonstrate to be best.

Your position on the New York and Erie Railroad, in charge of bridge constructions and repairs, and subsequently as superintendent of that road, afforded you an opportunity, which you did not fail to improve, of experimenting on a large scale; and it was a source of much gratification to me, to be made acquainted, either by yourself or the en-