of the iron with which they are made, are entirely unsafe; and there always will be, as long as public officials purchase iron which they know nothing about, to put into bridges. When a bridge is finished, the ordinary examinations never detect the quality of the iron; so that the wise remarks of many inspectors, or the opinions of those in charge of these structures, as to the exact condition of a bridge, are of little or no value.

We often hear iron bridges condemned, while wooden ones, so called, are supposed to be free from defects. It does not seem to occur to persons holding such ideas, that wooden bridges rely just as much upon the strength of the iron rods that tie the timbers together, as upon the timber. As a matter of fact, where one iron bridge