

general design, and they may have the same amount of metal in each, and yet one bridge is better than the other, just in proportion as the workmanship, the material, and design of the joints are better. In fact, these elements may be so poor in the second bridge as to make it positively unsafe to use, and yet to the inexperienced eye one bridge may seem almost the counterpart of the other. If this book does nothing more than bring a realizing sense of the above facts home to those public officers on whom the responsibility of carrying out public improvements usually rests, the writer will feel abundantly compensated for his labors, for he feels well aware that if this advance in official sentiment is once attained, the next step of progress will certainly follow—namely, the employment of *experts* to prepare well-defined specifications, and see that they are properly carried out.