CHAPTER XX.

ERECTION AND MAINTENANCE.

The number of men required to erect an iron highway-bridge will vary from half a dozen to sixty, or even more, according to the length of span, width of roadway, location, and the time to be occupied in erection.

For any one bridge, there is a certain number of men which will be more economical than any other number; and it is only experience which will enable one to tell beforehand what this number is.

If there are too few hands, the work will lag, and difficulty will be experienced in handling heavy pieces; on the other hand, if there are too many men, the travelling expenses, and the time spent in travelling by the extra men, will be wasted, and the total amount of effective work done by each man per day will be less.

If, for any reason, there be need for haste, it will be economical to have a large force of men, notwithstanding the last-mentioned consideration. For raising ordinary county bridges, the author would recommend the following numbers of men in a gang: for pony truss-bridges, six men; for through-spans not exceeding eighty feet, seven men; from eighty to one hundred feet, eight men; from one hundred to one hundred and twenty-five feet, nine or ten men; from one hundred and twenty-five to one hundred and fifty feet, eleven or twelve men; from one hundred and fifty to one hundred and seventy-five feet, thirteen or fourteen men; from one hundred and seventy-five to two hundred feet, fifteen or sixteen men; from two hundred to two hundred and fifty feet, from sixteen to twenty-four men; and, from two hundred and fifty to three hundred feet, from twenty-four