thereon, over the enlarged Erie canal, (72 and 80 feet span,) one of which has been in use for six years, it may be regarded as a demonstrated fact, that bridges may be sustained by iron trusses. Also, that the cost, for the above class of bridges, is only about 25 per cent more than the same class of bridges of wood, as heretofore built, under the most favorable circumstances, on the Erie Canal. That the iron portion, constituting some $\frac{3}{4}$ of the whole as regards expense, in the iron bridge, gives fair promise of enduring for ages, while the wooden structure can only be relied on to last 8 or 10 years.

Upon these facts experimentally established, I found the following comparison:

A common road bridge of 72 feet span, (the usual length for the enlarged Erie Canal,) will cost, with iron trusses,

7000 lbs. of cast iron—3 cts., ............... $ 210
6000 wrought do, manufactured for the work, at 7 cts., .................. 420
Timber labor and painting, .................... 230
Superintendence and profit, ...................  80

Whole first cost,................................. $ 940

$175 will renew the perishable part once in 9 years, to produce which, at 5 per cent, will require a capital of.............. 320

Total for a perpetual maintenance,............ $1260

With wooden trusses fastened with iron,

Timber, labor, paint and profit, ............... $ 550
2000 lbs. of iron fastenings, ................... 150
Whole first cost,................................. $ 700

(Some have cost $1000 or $1200, and taken 3 to 4000 lbs. of iron.)

To renew $550 worth of perishable material, once in 9 years at 5 per cent, compound interest, will require..... 1000

Total for perpetual maintenance,............. $1700