Now, as the same relations obviously subsist between the weight of the several portions of the superstructure, above represented by $w'$, $w'$, &c.; & the stresses produced thereby on the various parts of the truss, as between any uniform movable load, (such as we represented by $w$, $w$, &c., in preceding pages,) and the stresses resulting therefrom; we have only to make use of $(w+w')$, instead of $w'$, in the process just above explained, to determine the absolute stresses upon diagonals and uprights, resulting from both permanent and movable load, when the latter is uniform and extreme throughout. For instance; as the tension of $fi$, due to weight of structure, is $2w' \times fi \div ig$, so the tension of the same part due to both weight of structure & uniform load of $w$, $w$, &c., throughout the whole length of bridge, is $2(w+w') \times fi \div ig$.

We have already seen, (Pages 132..134,) how the action of diagonals governs and determines the stresses upon the different portions of the chords, due to a full movable load alone, and by substituting $w+w'$ for $w$, in the expressions there obtained, we have the absolute maximum stresses upon those parts, arising from both causes.

For the absolute *maximum* stresses of diagonals, we must add the effects due to weight of structure to the maximum effects due to variable load, when both fall upon the same, and subtract the lesser, in cases where the two forces fall on counter, or antagonistic diagonals. [See Art. A, Pgs 21 & 22.]