the value of \( h \), the shorter the intervals at which the
increments in the stress of chords are added, and the
less the magnitude of such increments, in the same
proportion. Hence, in general, there is no difference
in the stresses of chords, whether the diagonals have
one inclination or another.

With regard to the effect upon verticals, that part
of their stress which they receive through diagonals,
is equal to the weight sustained by those diagonals,
and is the same for a given weight, whatever be their
inclination. On the vertical \( wc \), the pressure is re-
ceived directly from the weight. But on the next ad-
joint vertical, on either side, one-half of the same
pressure is received through to the intervening diag-
onal, and transmitted to the next, and so on to the end.

Consequently the aggregate action of verticals, pro-
duced by the weight \( w \), is equal to \( w + \frac{1}{2}wn \), taking \( n \)
for the number of verticals receiving their stress
through the medium of diagonals, and which is equal
to the whole number less 3, when the number is odd,
and the verticals act by thrust, as assumed in the case
of Fig. 21. If the weight be applied at the lower
chord, the whole action of verticals is communicated
through diagonals, the latter acting by tension.

Hence the aggregate action of verticals increases and
diminishes with their number, and economy as regards
those members, would require the diagonals to incline
at a greater angle with the vertical than that which
is most favorable as to the diagonals themselves.

We have seen, however [LXVI] that by placing the
diagonals at 45° when they act by thrust, we lose about
9 per cent in economy of those members, and we now
learn that such an arrangement increases the economy
in verticals to a considerable extent by diminishing