

bove and beyond the net lengths and cross-sections of parts, as here before determined for the trusses under discussion, required for the lapping of parts, screws & nuts, pins & eyes, &c., to form the connections of parts.

With regard to the trusses under comparison, no obvious reason presents itself, why any one should require a per-centage of allowance for connections, materially greater than another. Especially, as to the Post and Whipple trusses, the forms, and the modes of connecton of parts, may be almost identical for the two; and it is my present purpose, to compare the *Capabilities* of different plans, rather than the *Excellence of Detail* adopted by their respective advocates. Mr. Post's truss, as presented in Fig. 45, contains 42 per-cent more thrust pieces between Chords, than that presented in Fig. 46; and, since much less action, in proportion to length, is concentrated upon these parts, the material acts with less advantage than other thrust material, as before remarked, by, probably one half. Hence, any increase in their number, must be unfavorable to the economy of the truss containing such increase.

The inclination of End Braces in truss Fig. 46, may, perhaps, be fairly offset against the less inclination of the 10 Inclined Posts in truss Fig. 45.

As it has been assumed that the same forms and connections are equally applicable to both of these trusses, it may be seen also, that both are susceptible of a simliar contour. By removing parts out-