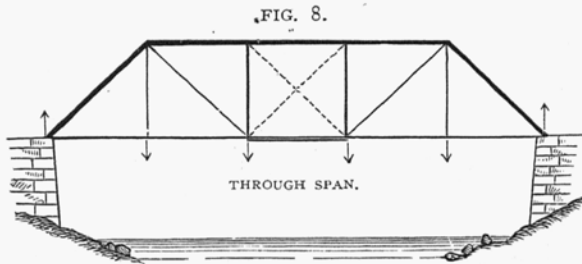
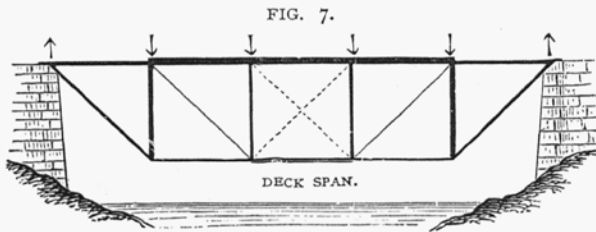


principles is all that is necessary to meet the ordinary requirements of every-day practice. By adding to the number of posts, the Whipple or Pratt truss, Figs. 7 and 8,



WHIPPLE SINGLE CANCELED TRUSSES.

is formed, a plan of truss the popularity of which is well deserved. The inclination of the end posts, though not essential, results in a saving of material over vertical posts, but the latter form produces, in the judgment of many, a more pleasing effect. A study of the diagram will show how cumulative the horizontal effects of each diagonal main tie are toward the centre of the chords; and also how it is that any main tie must carry *all* the weight between its own panel load and the centre of the span.

Fig. 9. When a span becomes very long, and it is constructively and economically inconvenient to have