only in a minor degree. The load on each post splits in half, as it were, at the post-foot, each portion being carried up the inclined ties to the top of the adjoining posts, each minor system thus adding to the weight imposed on the next larger system, until the whole load is finally delivered to the abutment. The main system extending over the whole span is called the primary system; the systems extending over each half span are secondary systems; those over each quarter of the span, are tertiary systems; those over each eighth of the span, quaternary systems, and so on. The horizontal increments of all the ties accumulate at the extreme ends of the top chord, producing uniform compression throughout its whole length.

Fig. 13 is the familiar bowstring, which acts, as before remarked, like an arch, and bears no relation what-

![Fig. 13. Bowstring Truss.](image)

ever to the typical form of trusses developed from Figs. 5 to 12. The essential parts are the bow and tie, the latter taking the place of fixed thrust abutments. The web for a uniform load need be nothing more than vertical rods, carrying simply the separate loads at the panel-points. Where the load is variable, as is always