be as close to the pin as possible, allowing a little clearance for the diagonals. The proper positions can be ascertained from the general elevation. The lattice bars should be close to the stay plates: it will not be necessary to show more than a few of them on each strut, the positions of the others being indicated by their centre lines, as shown on Plate VI. This plate contains a portion of a working-drawing for a model of the bridge treated in the previous chapter. The small scale of three-quarters of an inch to the foot was chosen so as not to make the model too large; and the whole working-drawing is not given, because of the necessarily limited size of the plate. The principal portions are represented; so that one can, by studying the plate closely, learn all that it is necessary to know in order to make working-drawings; and students are recommended to give this matter special attention.

Next show in two projections the top chord and batter brace with all their details, and give several views of each connecting-plate and other detail in the neighborhood of its position on the elevation. The joints in the channels and plate of the top chord should be located three or four inches to that side of each panel point which is farthest from the centre of the bridge, so that the pin holes shall be bored through a single piece, and through the thicker of the two abutting pieces. At the hip joint it is of course unavoidable to bore the pin hole through the abutting ends of the chord and batter-brace channels. Next pass to the plan, where the first thing to do is to draw parallel to the original horizontal line of the elevation traces of the central vertical planes of the trusses and of the central plane of the bridge, locating the panel points very carefully, and as nearly as possible vertically, below their corresponding positions on the elevation. Then arrange the chord packing on one side of the plan so as to make the bending-moments on the pins as small as possible without having any of the chord bars pull at too great an angle with the plane of the truss.

If any of the panels have trussed bars, the trussing should be here shown, and the spacing of the rivet holes for same in the chord bars should be represented close to the plan of the trussed bars. Near the packing should be drawn separate