"assembled," as the technical phrase is, in order to see that they are right in length, etc. Then they are marked with letters or numbers, according to the working plan, and shipped to the spot where the bridge is to be permanently erected. Before the erection can be begun, however, a staging or scaffolding of wood, strong enough to support the iron structure until it is finished, has to be raised on the spot. When the bridge is a large one, this staging is of necessity an important and costly structure. An illustration on the next page shows the staging erected for the support of the New River bridge in West Virginia, on the line of the Chesapeake and Ohio Railway, near a romantic spot known as Hawksnest. About two hundred yards below this bridge is a waterfall, and while the staging was still in use for its construction, the river, which is very treacherous, suddenly rose about twenty feet in a few hours, and became a roaring torrent.

The method of making all the parts of a bridge to fit exactly, and securing the ties by pins, is peculiarly American. The plan still followed in Europe is that of using rivets, which makes the erection of a bridge take much more time, and costs, consequently, much more. A riveted lattice bridge, one hundred and sixty feet in span, would require ten or twelve days for its erection, while one of the Phoenixville bridges of this size has been erected in eight and a half hours.

The view of the Albany bridge will show the style which is technically called a "through" bridge, having the track at the level of the lower chords. This view of the bridge is taken from the west side of the Hudson, near the Delavan House in Albany. The curved portion crosses the Albany basin, or outlet of the Erie Canal, and consists of seven spans of seventy-three feet each, one of sixty-three, and one of one hundred and ten. That part of the bridge which crosses the river consists of four spans of one hundred and eighty-five feet each, and a draw two hundred and seventy-four feet wide. The iron-work in this bridge cost about three hundred and twenty thousand dollars.

The bridge over the Illinois River at La Salle, on the Illinois Central Railroad, shows the style of bridge technically called a "deck" bridge, in which the train is on the top. This bridge consists of eighteen spans of one hundred and sixty feet each, and cost one hundred and eighty thousand dollars. The bridge over the Kennebec River, on the line of the Maine Central Railroad, at Augusta, Maine, is another instance of a "through" bridge. It cost seventy-five thousand dollars, has five spans of one hundred and eighty-five feet each, and was built to replace a wooden deck bridge which was carried away by a freshet.

The bridge on the Portland and Ogdensburg Railroad which crosses the Saco River is a very general type of a through railway bridge. It consists of two spans of one hundred and eighty-five feet each, and