the old bridge into twelve of 88\(\frac{3}{4}\) feet each, with one of 177 feet in the centre. With this exception the spans of the several openings remain the same as in the old bridge.

The new piers were built, and as far as possible the work on the old ones was completed, before the iron work was commenced. The piers were built up inside of the old bridge to the height of the bridge seats of the new iron girders, with the exception of the first two piers from the west end, where different arrangements had to be made, as it was necessary to remove the old bridge before commencing the new work.

Such stones in the piers as could not be placed in their proper positions on account of the interference of parts of the old bridge, were left out, to be put in after the old trusses were removed.

The river piers, and the bridge seats and coping of all the piers and the abutments, are of cut granite from William H. Flynt's quarries at Monson, Massachusetts, where the stone was all cut to the proper dimensions before being brought to the bridge.

The two piers next the westerly end of the bridge were originally built of brown stone from Portland, Conn., and have been rebuilt with the same material, so far as alterations were needed, with the exception of the bridge seats and coping, which are of granite.

The abutments were originally built of granite, and the additions are of the same material.

For convenience in building the new piers, a temporary track was laid inside the old bridge, supported by the lower chords, over which the stone for the lower part of the piers was hauled, and lowered to its place.

THE FORM OF THE GIRDERS.

The general form of girder adopted by Mr. Laurie for this bridge, in all but the two shortest spans, is that of a truss composed of rolled plate, angle and T iron.

The posts or compression bars are vertical, and the ties or tension bars are at an angle of about 45° with the chords. The several parts being all firmly riveted together in their proper places.

There are, however, three distinct varieties of this general form adopted for the different lengths of spans, as will be seen in the