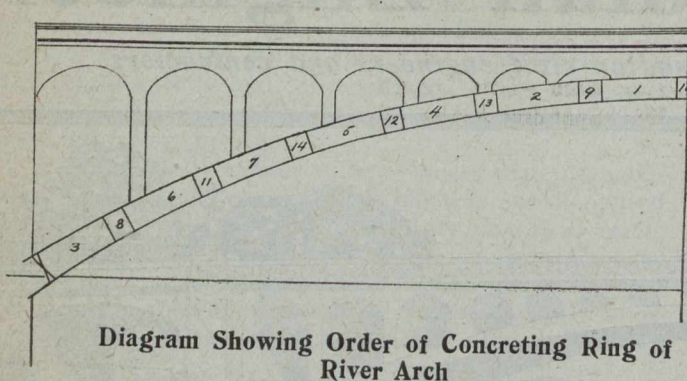


simultaneously with the concrete backing. After hard setting, the entire surface will be either polished or chipped to bring out the desired lighting and color effects.

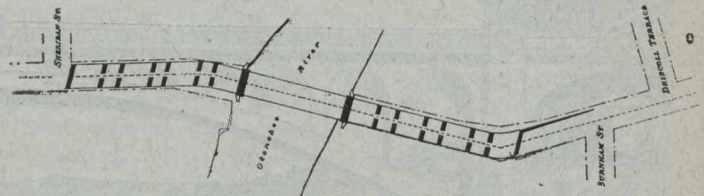


For the polished parts, the surfacing will consist of gray granite chips and grit, rubbed down for at least an eighth of an inch until smooth and even so that the small stones will be split and polished. Granite crushed stone will be used for the surfacing where chipped finish is required, and this will be chipped in such a manner as to expose the stone aggregate.

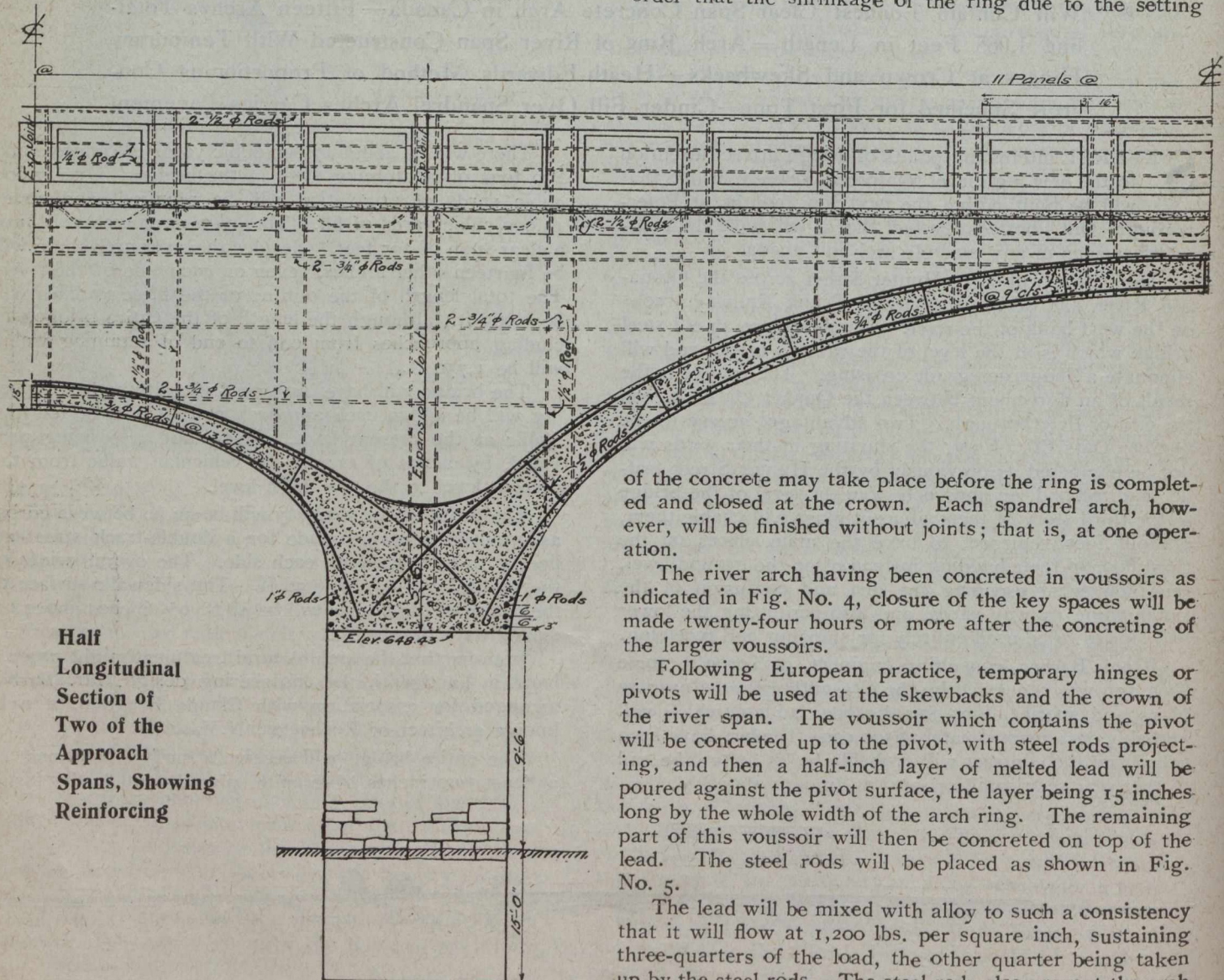
As the total surface area of the bridge will be less than 9,000 sq. yds., this treatment will be an incidental expense compared with the whole cost of the structure.

The panels in the balustrade of the river span and the ornamental cartouches on the lookout balconies in the centre of the span, also those on the four terminal piers, will be all mat glazed colored terra cotta in harmonious tones.

The arch ring of the river span will be concreted in sections in such a manner as to avoid shrinkage, leaving key spaces between the sections and closing the key spaces last of all. The sections between the bulkheads in the arch ring of this span will be concreted in the order



indicated by the numbers in Fig. 4, and in all other arch rings concreting will begin at both skewbacks and proceed from both equally to the crown. A key space at the crown approximately 1 ft. wide will be left between the bulkheads to be concreted at least twenty-four hours after the remainder of the ring has been concreted, in order that the shrinkage of the ring due to the setting



of the concrete may take place before the ring is completed and closed at the crown. Each spandrel arch, however, will be finished without joints; that is, at one operation.

The river arch having been concreted in voussoirs as indicated in Fig. No. 4, closure of the key spaces will be made twenty-four hours or more after the concreting of the larger voussoirs.

Following European practice, temporary hinges or pivots will be used at the skewbacks and the crown of the river span. The voussoir which contains the pivot will be concreted up to the pivot, with steel rods projecting, and then a half-inch layer of melted lead will be poured against the pivot surface, the layer being 15 inches long by the whole width of the arch ring. The remaining part of this voussoir will then be concreted on top of the lead. The steel rods will be placed as shown in Fig. No. 5.

The lead will be mixed with alloy to such a consistency that it will flow at 1,200 lbs. per square inch, sustaining three-quarters of the load, the other quarter being taken up by the steel rods. The steel rods also prevent the arch