when framed. We shall now, for the sake of perspicuity, confine ourselves to the illustration of a Bridge, the arms of which are supposed to be built with two ribs of timber, and the abutments of stone; being the materials most eligible, for the purpose in this country, in the present state of arts and sciences.

Tenth. The length and number of the first set of angular levers for the centre of a Bridge being described in the preceding preliminary, we now proceed to show that every succeeding set of logs, for nine tenths of the distance from the centre to each abutment, which is to be used in the same order, will be increased in length, one inch to a foot of the breadth of the end of said logs on the line of the archivolt; being the proportion of the isosceles wedge, or form fixed on for an arm of the degrees of altitude first mentioned. But the logs making up the remaining tenth part of the length of the arm next to the abutment will be increased in their length more suddenly on account of the elliptical eye of the arc which forms a parabola of handsome appearance and important strength. See Plate 5, fig. 1.

Eleventh. Every timber rib is made up of two thicknesses, as before remarked, whereby the horizontal levers, E, E, E, on Plate 1, fig. 1, and Plate 2, fig. 7, are inclosed in the internal part thereof. The thickness of each rib at the abutment is three feet (if the length of the arm be one thousand), or as much as the largest logs that are sound will average, the thickness of the extreme end of each rib, where they join in the centre of the Bridge is