ESTIMATES OF

ESTIMATE

Of the expense of Bridges on this plan of invention, from an Arch of 200 feet, to one of 2400 feet span, accurately calculated according to certain fixed prices of materials and labour, with ample allowance for waste and casualties.

The reader will observe, that the author, in these estimates, makes no calculations for building in water; as he wishes never to erect his abutments nearer the river than the highest water-mark, as in all cases those Bridges will be sure to be the cheapest. Also, that every Bridge is built in two halves, one from each shore.

ESTIMATE of a BRIDGE, 200 feet span.

This Bridge would be composed of two arms, and each arm of 2 ribs, and each rib is made up of two thicknesses. The length of each rib is of course 100 feet from the extremity or centre of Bridge A, to the fulcrum or abutment B, See Plate 3, fig. 1. The neat depth of each rib need not ever exceed 6 feet at the centre, by one foot thick; and fourteen feet 4 inches deep at the abutment, by 1 1/4 inches thick. The depth regularly increasing one inch to a foot, throughout the arm, till it reaches the abutment, and the thickness of the rib increasing from the centre to the abutment, 2 inches in 100 feet; therefore the author's measurements are easily examined as to these estimates.

The timber composing the angular levers of each rib will measure in their work, agreeably to the above dimen-