to any particular shape; but the most favourite form for an extended arm to be framed in, is that of an isosceles wedge, extended from each side, the small ends of course joining in the middle, terminating towards the fulcrum with intersecting circles of different radii, according to the proposed height the archivolt is intended to finish above the wharf; ending finally with a scroll, see plate 5. fig 1, which when completed is sure to furnish a grand parabolic arc. But, as the sine and co-sine of the arcs of Bridges on this plan will differ according to their various situations, so also will the form of the arc of each Bridge be diverse from each other.

PROP 5.

CONSTRUCTION. The mode of constructing a Bridge on this important invention is, perhaps, the most singular, and also the most simple, of any that has ever entered the mind of man. We shall illustrate its peculiarities in the following order.

PRELIMINARIES.

First. A Bridge on the principles of this invention may be erected wholly of timber, or of stone, or of cast-iron, without ceintres or support of any kind, while building; but each Bridge will be subject to a different shape.

Second. A Bridge on this plan may be erected of any altitude required, as also with or without a roof.

Third. The abutments of this Bridge, in appropriate situations, may be erected with warehouses, stores, or dwelling-houses, that would pay well for the expense of their building, in a short time.