which the end grain of timber supplies; so in a much greater proportion will the timber ribs composing the flying arms of this Bridge be infinitely superior in strength to that of any other formation, by their thickness being so much inferior to their depth.

PROP. 13.

The weight of the arms of this Bridge being supported principally on the end grain of the timber, is also a grand reason why it can be erected to a greater extent than any other Bridge. See geometrical elevations of this Bridge in building, Plate 5, fig. 1, and Plate 1, fig. 1.

SCHOLIUM.

The side-logs, or angular-levers, composing the ribs of this Bridge from the abutment to the centre, all rest in the lap of each other, in succession, on their end grain tusks and joggles.

COR. 1.

Therefore, by the length-grain longitudinal needles, or levers, being wholly enclosed in the end-grain tubes formed in the internal part of the above mentioned angular-levers, a strength is furnished superior to any other formation of timber heretofore witnessed; and which strength is abundantly capable of being multiplied beyond what can be needed for a Bridge, of any extent, the people of any country may wish to erect.