COR. 2.

The distribution of the gravity of the two angular logs in the diagram being ascertained, by the same rule we prove that the gravity of all the angular levers individually composing the ribs of a Bridge on this plan, and placed at the same angle, independent of the additional force which the horizontal levers will supply, is sure to be distributed in the like proportional manner; that is to say, the one half of the weight of each log forming any rib as at R, on Plate 5, fig 1, will be sustained by the inclined plane first of the pyramid, or the next adjoining log in succession as they are lowered down; the other half is lodged on the horizontal end-grain rests or tuskts, cut out of the said inclined planes.

We come next in order to point out the additional force therewith the angular or falling levers Q E and D I, on diagram, Plate 6, fig 1, * is pressed back towards the abutment by the extra weight and action of the horizontal levers F G, on the said diagram, and E E, on Plate 1, fig 1. We shall now illustrate the foregoing fact by the principles of the compound lever, No 1 and 4.

PROP 10.

First, If the lever F G, on the diagram, be considered distinctly as a lever of the first order, E will be the prop, I the weight, and C the power.

*As there are some omissions in the engraving of the diagram fig 5, Plate 5, we shall refer our reader to the diagram fig 1, on Plate 6, for the illustration of the remainder of this important subject.