

XII. *An Account of an Experiment touching the Proportions of the Ascent of Spirit of Wine between two Glass Planes, whose Surfaces were plac'd at certain different Distances from each other. By the late Mr. Francis Hauksbee, F. R. S.*

I Took two Glass Planes, about 6 Inches long, and two broad: These (being made clean) I separated at each end by the number of 32 pieces of Brass *Laminae*, whose thickness, when laid one upon another, and press'd together by Screws, made a distance between the Planes equal to (as near as I could measure) $\frac{1}{16}$ of an Inch. Being thus prepar'd, I plung'd one end of them into some ting'd Spirit of Wine; and after I had wetted the inward Surfaces of the Planes with it, by declining the upper end, I set them upright; and found that the Surface of the Wine between them remain'd higher than the Surface of the Wine on their outsides, by a distance equal to the first Line CD above the Line AB, the Line AB being the common Surface, in all the tryals, on the outside of the Planes. (See the Scheme hereunto annex't) After this, I reduc'd the distances of the Planes to half the former, by taking away 16 of the Brass *Laminae* from each end of them; then being plung'd into the Liquid, and used in all respects as before, I found the Wine to stand between the Planes just double the height it stood at in the former tryal; as may be observ'd by the Line EF in the Scheme. Again removing half the number of Brass pieces, whereby but 8 of them were left at each end, and using them

as in the preceding manner, the Wine rose between them to a height just double to that in the foregoing tryal, mark'd in the Scheme by the Line G H. Thus from 8 I reduc'd them to 4 pieces at each end of the Planes; then again the Wine was seen to remain suspended to twice the last observ'd height, represented by the Line I K. In this last tryal the Planes were distant one from the other but $\frac{1}{128}$ of an Inch; nearer than that I could make no certain measure; but I suppose the fore-cited Experiments are sufficient to ground a Calculation upon, even of the most near Approximations.

