



# XLVI. Account of an improved form of apparatus for exhibiting M. Clement Désormes's Experiments on Currents of Air, &c

Robert Young Esq.

To cite this article: Robert Young Esq. (1828) XLVI. Account of an improved form of apparatus for exhibiting M. Clement Désormes's Experiments on Currents of Air, &c , Philosophical Magazine Series 2, 3:16, 282-282, DOI: [10.1080/14786442808674643](https://doi.org/10.1080/14786442808674643)

To link to this article: <http://dx.doi.org/10.1080/14786442808674643>



Published online: 10 Jul 2009.



Submit your article to this journal [↗](#)



Article views: 2



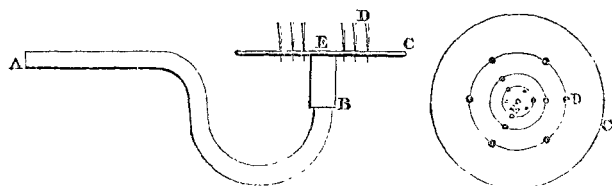
View related articles [↗](#)

XLVI. *Account of an improved Form of Apparatus for exhibiting M. Clement Désormes's Experiments on Currents of Air, &c.* By ROBERT YOUNGE, Esq.\*

THIS improvement consists in the application of moveable pins on the plate, which enable the operator to vary the size of his discs; and it is presumed involves the explanation of these phænomena. The form of the glass tube permits the effect to be very distinctly seen, particularly when the current is powerful, the edge of the plate being on a level with the sight.

AB is a bent glass tube about six inches long; C is a circular copper plate, having a tube of the same metal attached underneath, which receives the end of the glass tube B.

D are upright moveable pins †, passing through holes in the plate, which are represented in the circular drawing. At E the plate is perforated, to form a communication between the upper side of the plate and the glass tube ‡.



By commencing with a large disc, and gradually reducing its diameter, we may perceive corresponding alterations in the force of the resistance which it offers; and by striking circles of different diameters round the central opening, and leaving three or more smaller holes in each circle for inserting the pins, we may easily apply discs of any diameter; and *when these bear a certain proportion to the diameter of the central opening, they are invariably blown off.*

In No. 2. of the Journal of Science, p. 473, it is observed, "If the issue for the vapour be turned towards the earth, and the disc consequently tend to fall, as well by its own weight, as by the pressure of the vapour, still it will not descend." Might not the amount of this counter-attraction, or overcoming of gravity, be pretty accurately estimated by the application of a series of discs, of different weights, varying according to the diameter of the opening, and weighted in proportion to the power of the current?

\* Communicated by the Author.

† The sole use of these pins is to keep the discs over the central opening.

‡ This apparatus was exhibited at the last meeting of the Sheffield Literary and Philosophical Society.

XLVII. *Of*