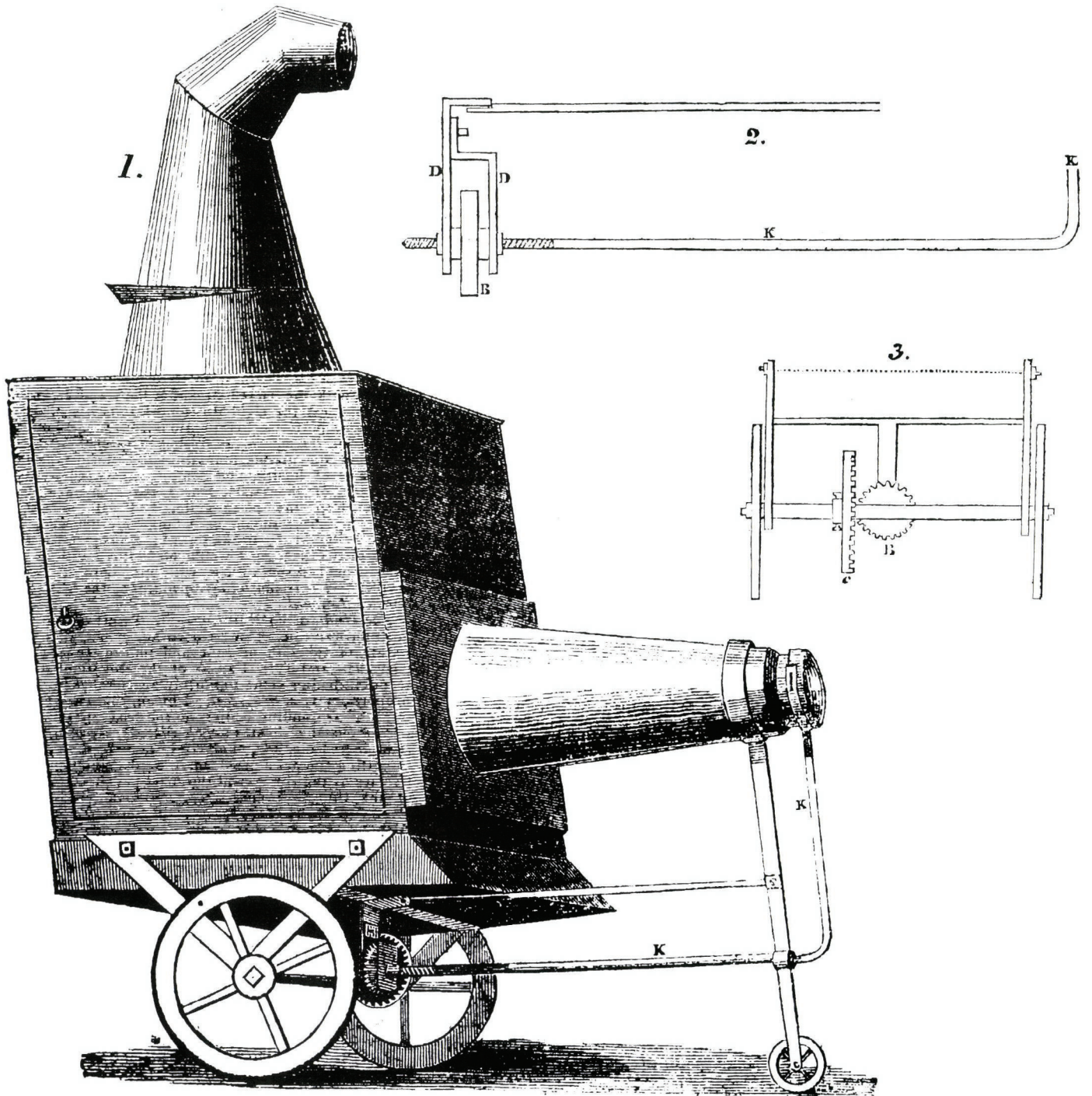


CLARKE'S IMPROVED MAGIC LANTERN.



CLARKE'S IMPROVED MAGIC LANTERN.

Sir,—The magic lantern, though so capable of combining instruction with amusement, has been hitherto confined to (comparatively) few hands, owing to its being an inconvenient thing to use, to those who have not, like public lecturers or exhibitors, a supplementary apparatus constructed for the purpose. The writer of this believes he has obviated every objection to its general use in private circles, by an application effective yet simple, and not interfering in the least with the portability of the instrument.

Fig. 1 represents the lantern, mounted upon a stage with wheels; KK is an adjusting rod, which is moved backward

and forward by passing through a tapped barrel wheel B, fig. 2, which barrel wheel (supported by the forked stay, DD) is driven by a crown wheel upon the axle of the carriage, as represented by c at fig. 3, which is a view of the machinery from behind the lantern. The wheels are made fast upon the axle, and milled on the edge. By means of this mechanism the conjugate focus is kept adjusted with the carriage wheel, and the object maintained beautifully distinct as it apparently approaches to and recedes from the spectator, until it appears remote in the horizon, when it gradually becomes indistinct, which is agreeable to the mode

adopted by professors, as well as analogous to nature. Should the necessary elevation of the forepart of the lantern be objected to, as producing elongation, (which, however, would scarcely be perceived,) the effect may be counteracted by a slight inclination of the screen towards the lantern. To the principle of the barrel or tube wheel, shown at fig. 2, I would particularly direct attention, as it is applicable to many purposes besides the present. I may add, that the above plan is approved of and adopted by Mr. John Davis, optician, Cheltenham, in all the lanterns of his manufacture.

I am, Sir, yours, &c.

URIAH CLARKE.

Leicester, July 30, 1833.