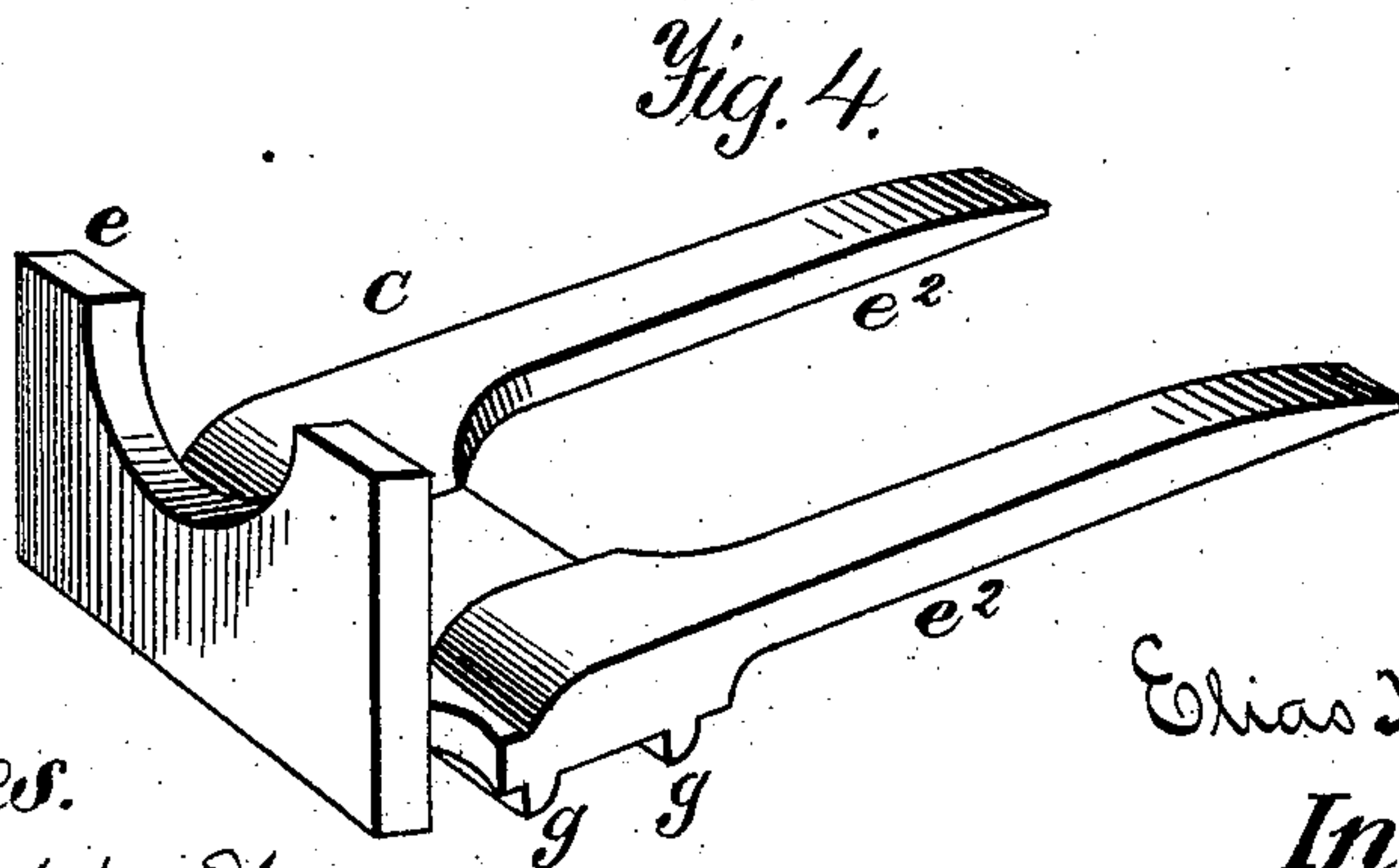
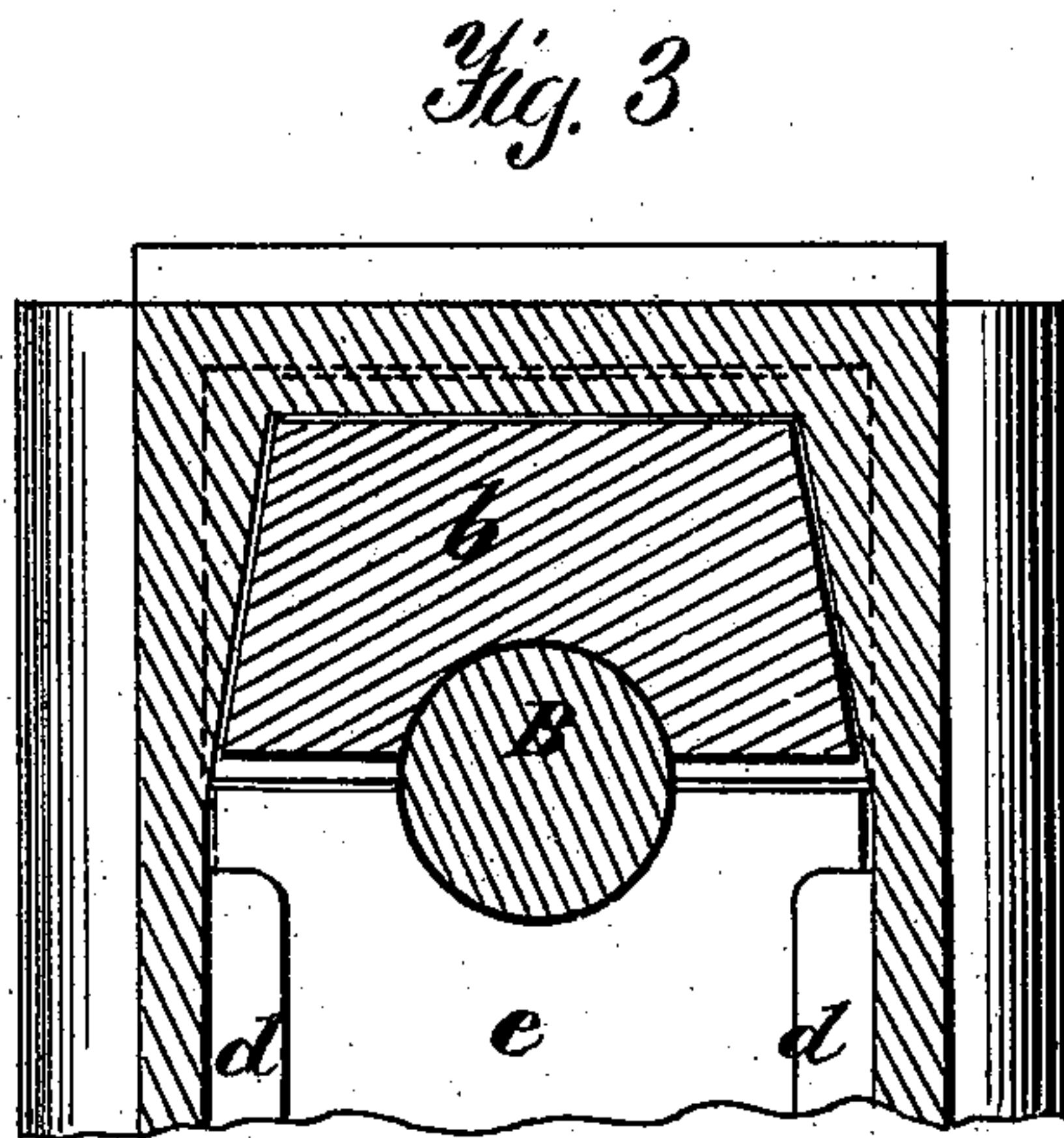
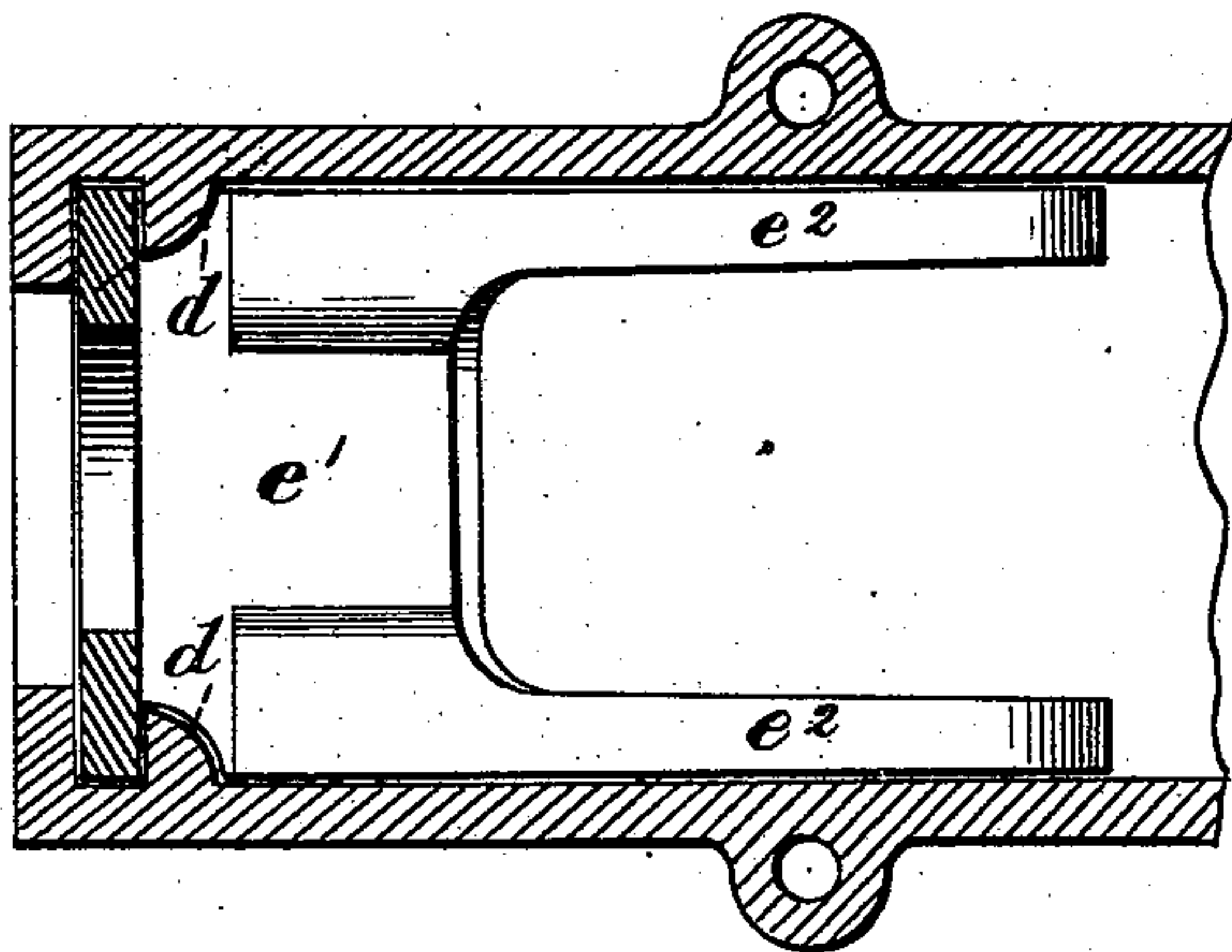
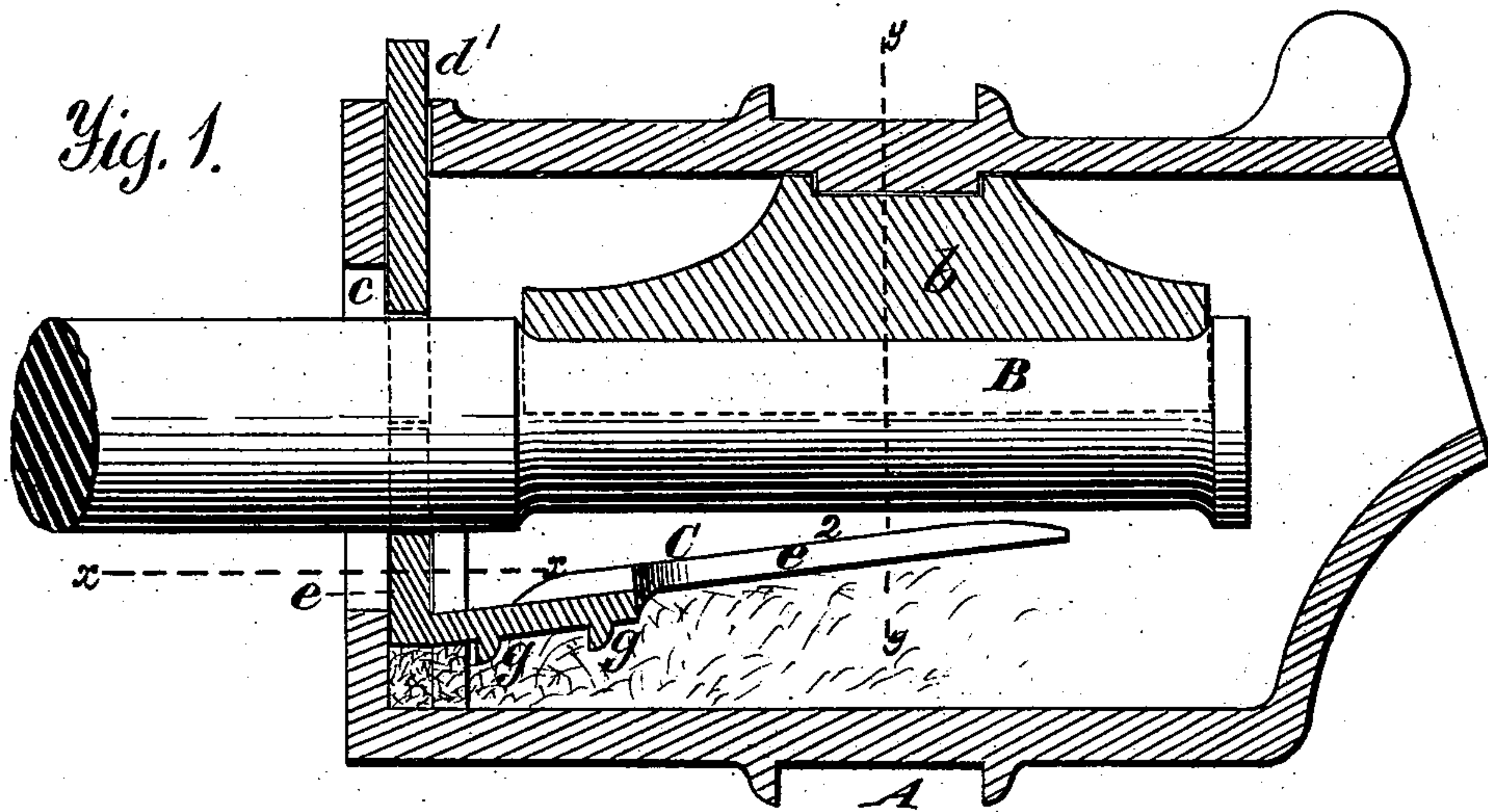


E. H. SHOEMAKER.  
Car-Axle Box.

No. 226,797.

Patented April 20, 1880.



*Witnesses.*  
*Anton Ruppert.*  
 *Jas. A. Lange.*

*Elias H. Shoemaker.*  
*Inventor.*  
*per Eldon Bros.*  
*Attorneys.*



# UNITED STATES PATENT OFFICE.

ELIAS H. SHOEMAKER, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO JACKSON D. CONDON, OF SAME PLACE.

## CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 226,797, dated April 20, 1880.

Application filed January 27, 1880.

*To all whom it may concern:*

Be it known that I, ELIAS H. SHOEMAKER, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car-Axle Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a longitudinal section of my improved car-axle box with the axle in side view. Fig. 2 is a horizontal section on the line  $x x$  of Fig. 1. Fig. 3 is a vertical transverse section on the line  $y y$  of Fig. 1; and Fig. 4 is a perspective view of the dust-plate removed from the axle or lubricator box.

In car axle or shaft boxes or lubricator-boxes an enlarged opening is left in that end of the box through which the axle or shaft enters the box, to permit the axle or journal to have a limited amount of play without coming into forcible contact therewith. This enlargement of the opening, it is evident, would allow of the escape of the lubricant, or the ingress of dust or extraneous particles at that point, were not provision made to guard against their occurrence.

The object of my invention is to supply this provision, and thereby avoid these disadvantages of the waste of the lubricant and the ingress of dust, &c., to the lubricator; and to these ends it consists of a dust-plate with an upwardly-inclined arm or arms, and in certain details of construction, substantially as hereinafter more fully set forth.

In the accompanying drawings, A refers to an ordinary car-axle box or lubricator-box, with the axle or journal B in position therein, and held to its place by the brass  $d$ . That end of the box through which the shaft or axle enters the box is provided, as is usual, with an enlarged opening,  $e$ , to give the shaft the desired amount of play. The slide  $d'$  closes the upper part of this opening, while its lower part is closed by the dust-plate C, which pre-

vents the escape of the lubricant or ingress of dust or extraneous particles at that point. This dust-plate consists of an upright board or plate,  $e$ , which is adjusted or held between cleats  $d d$ , forming grooves or flanges upon the inside of the box, and is held with its concaved edge against the under side of the shaft or axle by the cotton-waste  $f$ , wedged or pushed under it, as seen in Fig. 1.

To the inner side of the board or plate  $e$  is attached an arm,  $e'$ , or it may be formed or cast in one piece therewith. The upper side of this arm is concaved near the part  $e$ , to serve as a drain for the dripping lubricant, from which it passes upon the cotton-waste to be again fed to the shaft or journal. The under side of this arm is provided with spaced-apart or separated pendants or studs  $g$ , to assist the holding of the waste under the arm and part  $e$  of the dust-plate.

The arm  $e'$  is, furthermore, provided with prongs  $e^2 e^2$ , extending a considerable distance back under the shaft or axle, as seen in Fig. 1, to serve, by being inclined upward, for guiding the pushing or passing of the cotton-waste under the dust-plate, while the space between the prongs permits the waste to come into immediate contact with the under side of the shaft or journal.

Having thus fully described my invention, I claim and desire to secure by Letters Patent—

1. The combination, with an axle-box, of a movable dust-plate having an arm extending over the waste, as and for the purpose set forth.

2. The dust-plate or upright  $e$ , provided with a concaved arm,  $e'$ , substantially as and for the purpose set forth.

3. In a dust-plate, the upright  $e$ , provided with the arm  $e'$ , having upon its under side studs or pendants  $g$ , substantially as and for the purpose set forth.

4. In a dust-plate, the upright  $e$ , provided with the arm  $e'$ , having an upper concaved surface, and its under surface provided with pendants or studs  $g$ , substantially as and for the purpose set forth.

5. In a dust-plate, the upright  $e$ , provided

with the arm  $e'$ , having the prongs  $e^2$  disposed in an inclined position, substantially as and for the purpose specified.

5 6. The combination of the dust-plate composed of the upright  $e$ , provided with the arm  $e'$ , with the lubricator or axle box A, having cleats, grooves, or flanges for holding the dust-plate in position therein, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of January, 1880.

ELIAS H. SHOEMAKER.

Witnesses:

WM. E. RENTZ,  
FRANK KOCH.