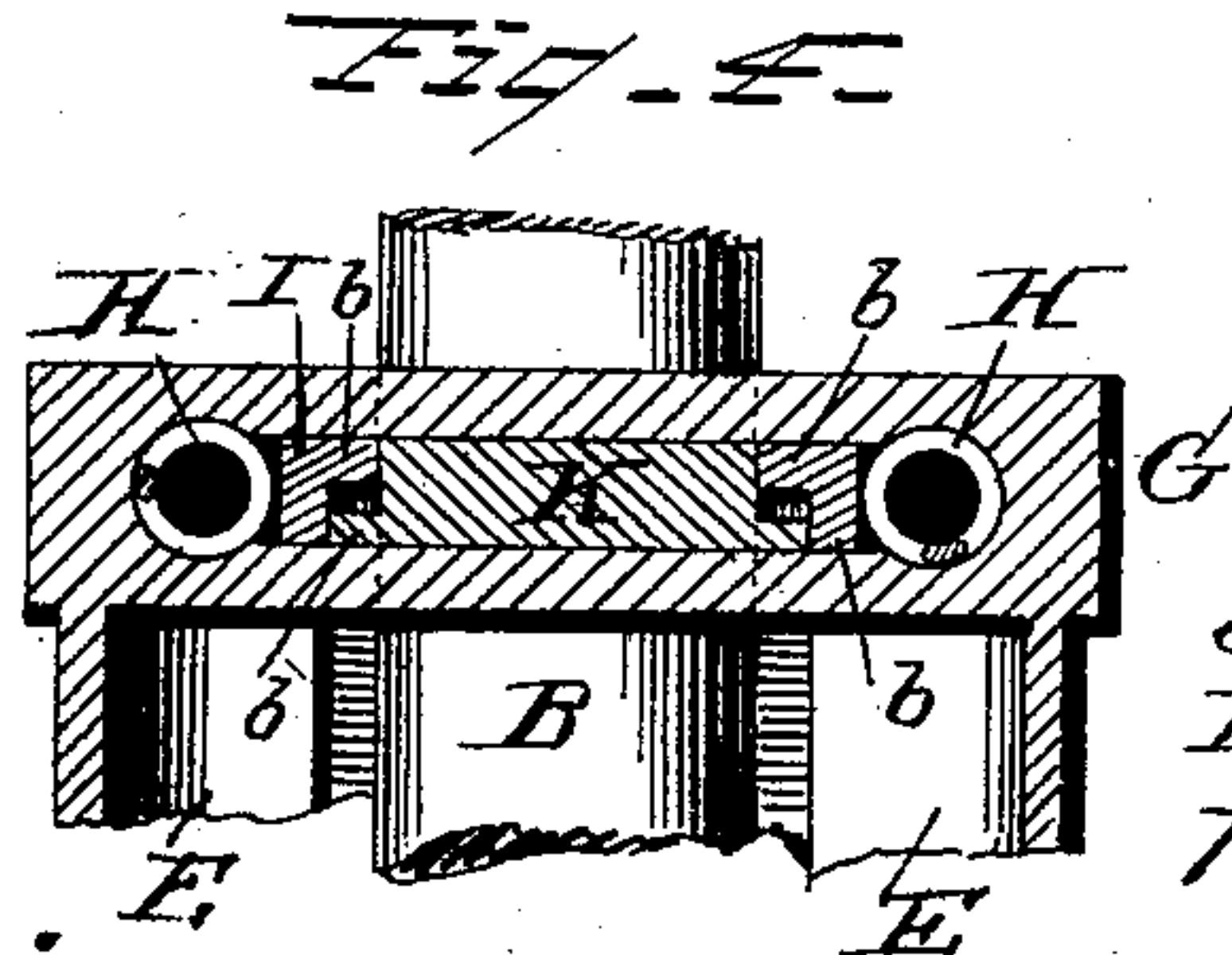
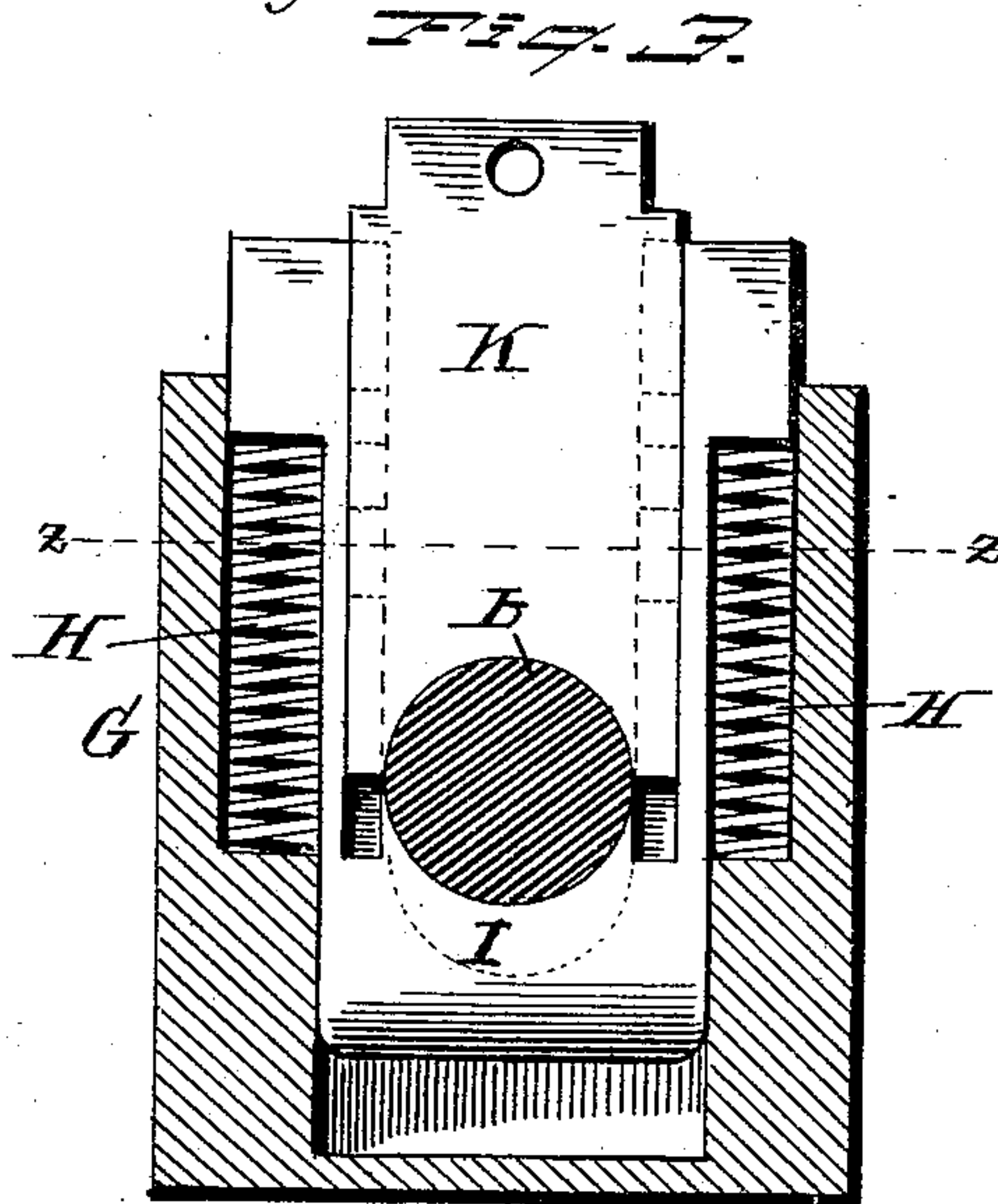
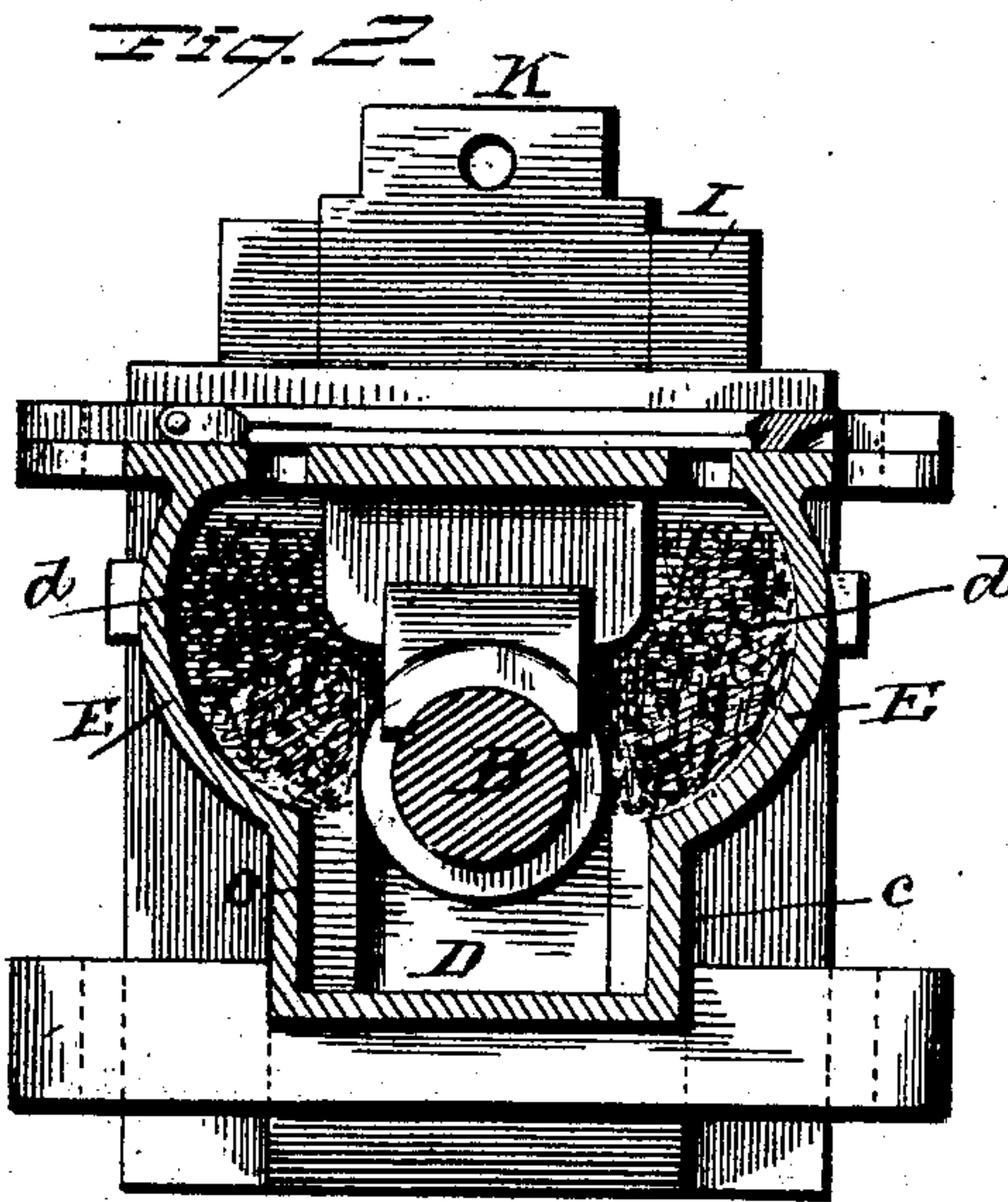
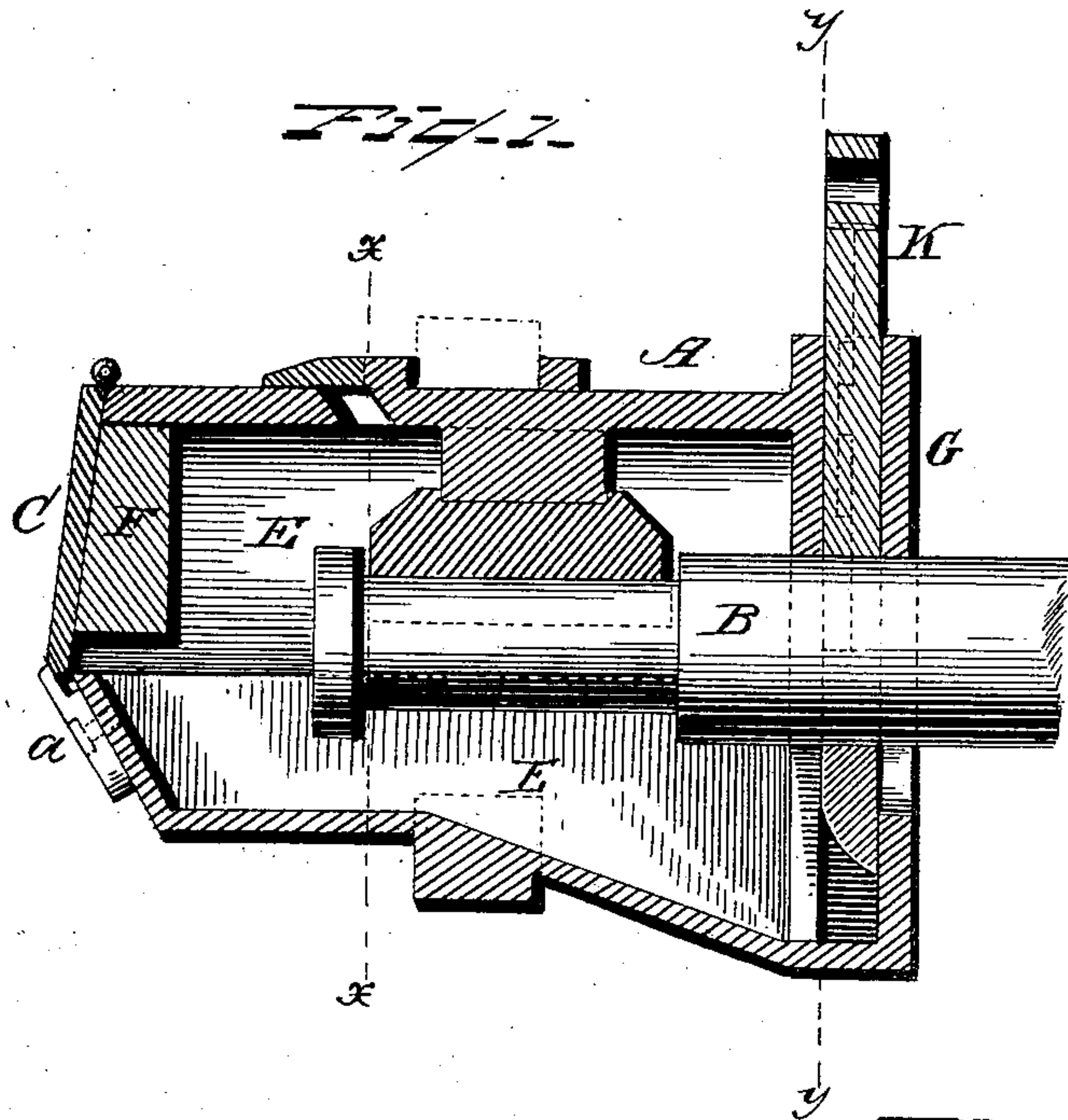


(No Model.)

J. L. KINSELL & F. A. LEAVENS.  
CAR AXLE BOX.

No. 507,141.

Patented Oct. 24, 1893.



Witnesses  
G. Williamson.  
Wm. J. Brown.

Inventors  
James L. Kinsell,  
Fenner A. Leavens,  
per Cha. N. Fowler,  
Attorney.



# UNITED STATES PATENT OFFICE.

JAMES L. KINSELL AND FENNER A. LEAVENS, OF BELLE PLAINE, IOWA.

## CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 507,141, dated October 24, 1893.

Application filed April 17, 1893. Serial No. 470,760½. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES L. KINSELL and FENNER A. LEAVENS, citizens of the United States, residing at Belle Plaine, in the county of Benton and State of Iowa, have invented certain new and useful Improvements in Car-Axle Boxes; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a car-axle box in which the tow or cotton-waste which is saturated with lubricating material is better retained against the sides of the journal-end of the axle and brasses where the most friction occurs, and also prevents it from falling or working to the bottom of the box, thus effecting greater economy in its use.

A further object of the invention is to improve the box in the several details of construction, and the invention consists in a car axle box constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings represents a longitudinal vertical section of a car axle box constructed in accordance with our invention, the journal end of the car-axle being shown in position therein in full lines. Fig. 2 represents a transverse section taken on line  $xx$  of Fig. 1; Fig. 3 a similar section taken on line  $yy$  of Fig. 1; Fig. 4 a horizontal section taken on line  $zz$  of Fig. 3.

In the accompanying drawings A represents the car axle box and B the journal end of the axle, said box having the usual hinged lid C and catch  $a$  for retaining it closed.

The base or bottom of the box A is formed of just sufficient width between its perpendicular sides  $c$  to admit of the journal end of the axle passing down between them. This width of the box or narrow base D is maintained upon both sides thereof to about on a line with the central diameter of the journal end

of the axle, as shown in Fig. 2. This however may be varied at pleasure and the depth of the base D either increased or diminished. The opposite sides of the box A are extended some distance out from the vertical walls of the base D or have a swell or convexity to provide chambers E, which chambers extend the entire length of the box upon both sides thereof for the reception of the tow or cotton saturated with lubricating material as shown at  $d$  Fig. 2. The chambers E retain the tow or cotton-waste which is saturated with lubricating material against the sides of the journal end of the axle and the brasses where the most friction occurs, the tow or cotton waste with its lubricating material at all times being held up in position and prevented from working or falling down into the bottom of the box where it would not perform its office. The hinged lid C has a compressor F upon its inner side so as to slightly compress the tow or cotton waste and hold it back in place.

The inner end of the box has a recessed guide G in which are located suitable coiled springs H which permit the lower bearing section I to fall with any downward movement of the journal end of the axle. The bearing section I has a semicircular bearing to receive the lower portion of the journal end of the axle and the bearing section K has a similar formed bearing to extend over the upper portion of the journal end of the axle, as shown on Fig. 3. The upper section K is held down in position by its own weight, and the purpose of these sections is to keep out the dirt and grit. The bearing sections I K have rabbeted edges or over-lapping flanges to prevent any open space between them and thus effectually excluding any dirt or grit.

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A car axle box having a narrow base and extended sides to form chambers for the tow or cotton-waste with its lubricating material to hold and retain it against the sides of the journal end of the axle, and a hinged lid hav-

ing a compressor upon its inner side to force said tow or cotton-waste back in the box, substantially as and for the purpose set forth.

- 5 2. A car axle box having a recessed guide upon its inner end, coiled springs located therein, and bearing sections for the journal end of the axle, said sections having rabbeted or overlapping edges, substantially as and for the purpose specified.

In testimony that we claim the above we do have hereunto subscribed our names in the presence of two witnesses.

JAMES L. KINSELL.  
FENNER A. LEAVENS.

Witnesses:

ANDREW J. KEYSER,  
ALONZO R. BRINKLEY.