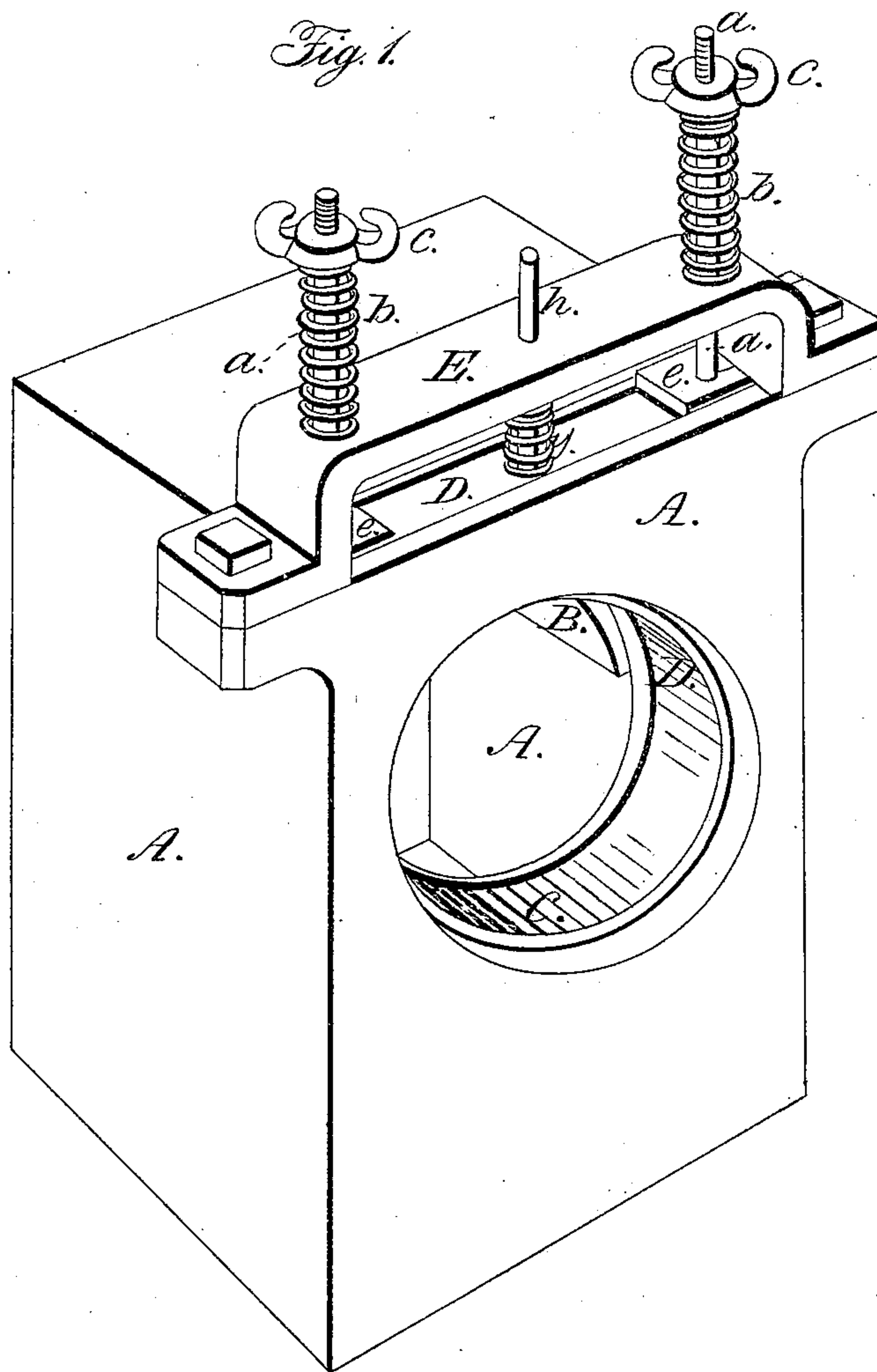


D. H. DOTTERER.
Car-Axle Box.

3 Sheets—Sheet 1.

No. 53,588.

Patented Apr. 3, 1866.



Witnesses:

R. J. Campbell.

Edw. Schaefer.

Inventor:

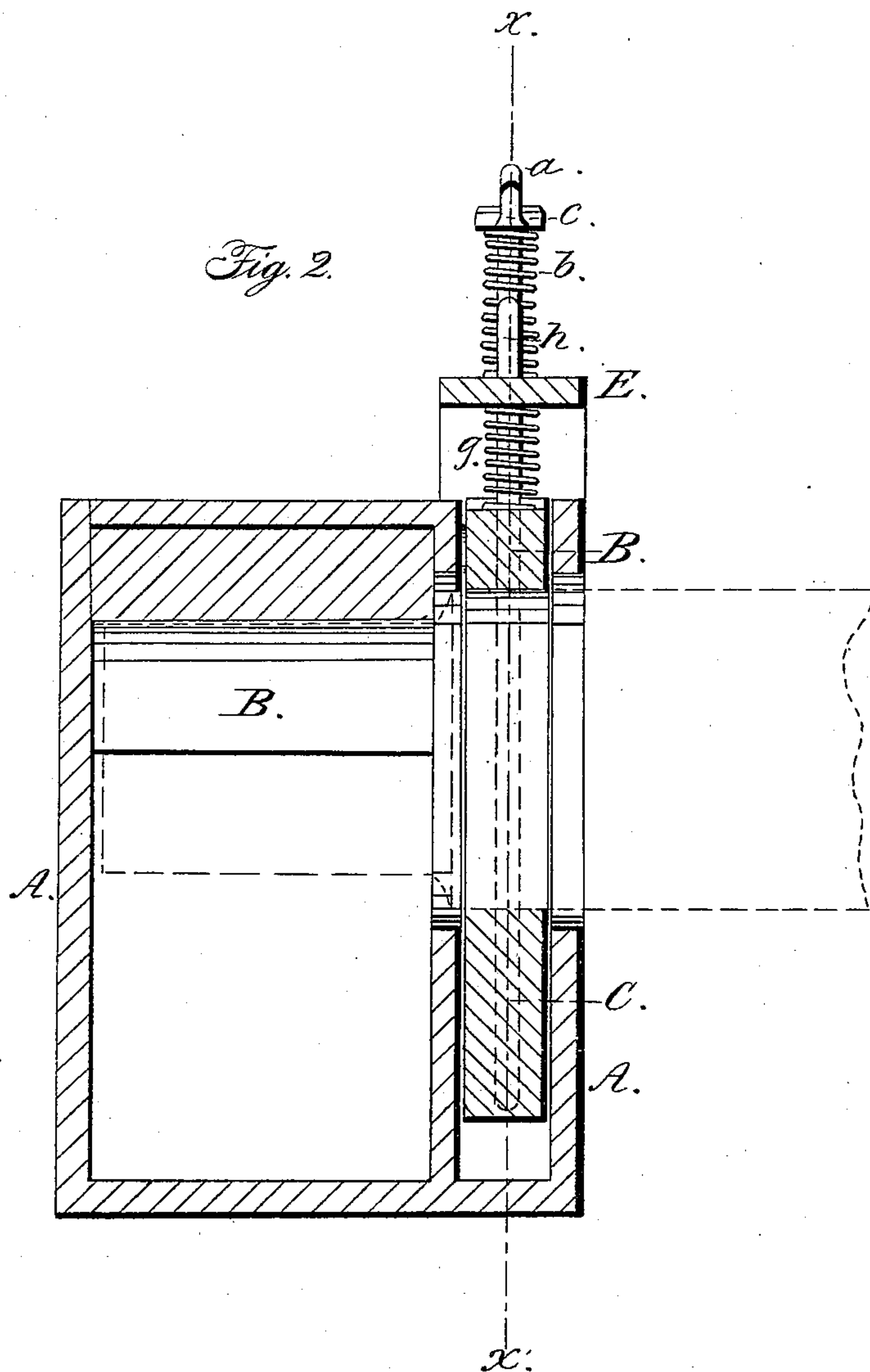
D. H. Dotterer.

D. H. DOTTERER.
Car-Axle Box.

3 Sheets—Sheet 2.

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Inventor:

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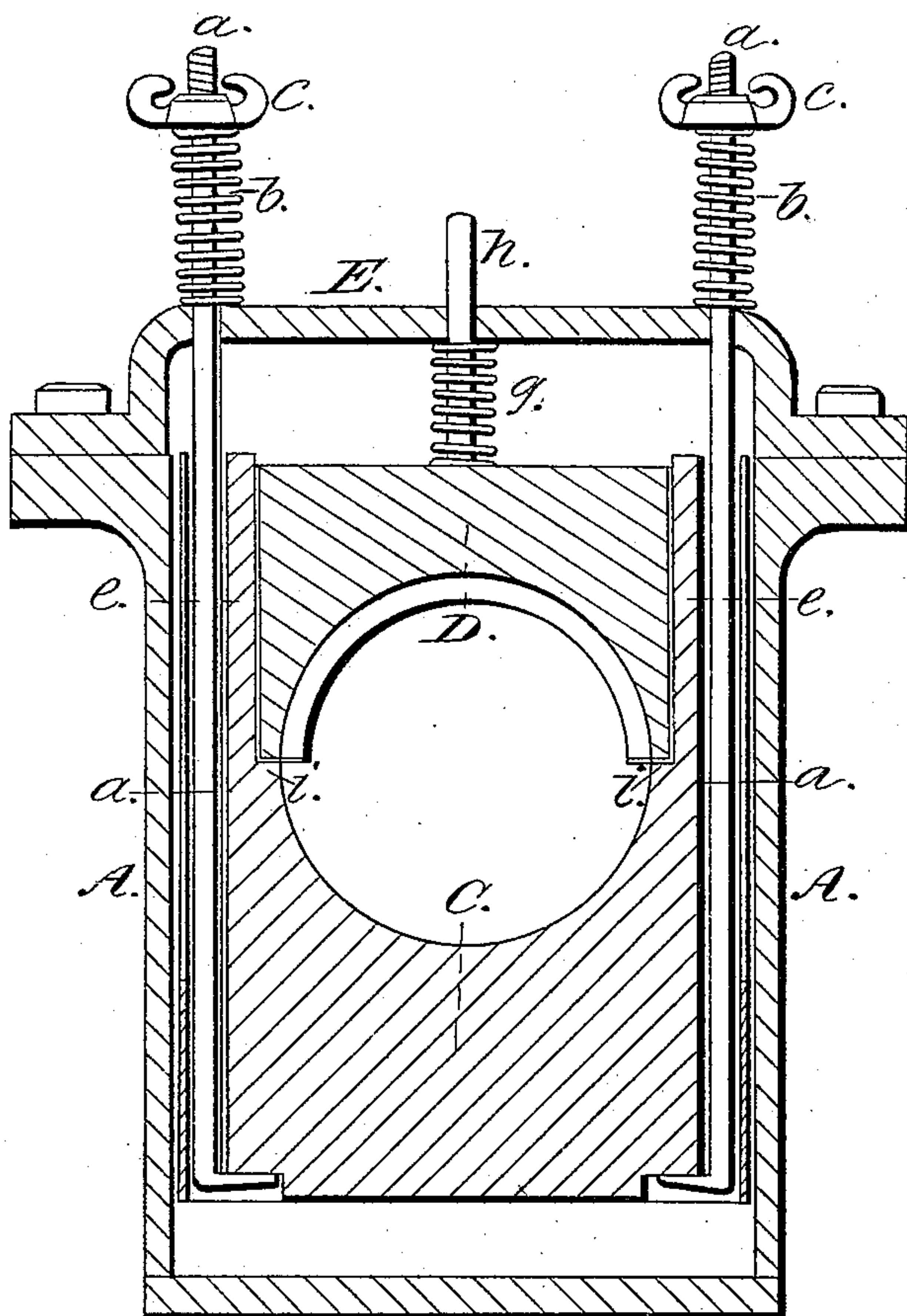
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Fig. 3.



Witnesses:

R. T. Campbell.

Edw. Schaefer.

Inventor:

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UNITED STATES PATENT OFFICE.

D. H. DOTTERER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED AXLE-BOX.

Specification forming part of Letters Patent No. 53,588, dated April 3, 1866.

To all whom it may concern:

Be it known that I, D. H. DOTTERER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Railroad-Car Axle-Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view showing my invention applied to an axle-box. Fig. 2 is a longitudinal section taken in a vertical plane through the center of the axle-box. Fig. 3 is a section through the box, taken in the vertical plane indicated in Fig. 2 by the dotted line *x x*.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to prevent the entrance of dirt and dust into the bearing-boxes of railroad-car axles, and also to prevent the escape of the lubricating substance from such boxes, by the employment of a packing which is self-adjustable and which will accommodate itself to the wearing away of the journal-bearing, so as to always fit snugly in contact with the axle, said packing being, also, so constructed and applied to the axle-boxes that it can be adjusted at pleasure from the outside of these boxes, and without removing it or opening the boxes for this purpose, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

The axle-box A may be constructed of the usual form for receiving the journal of a car-axle, and containing a lubricating compound therefor. The journal of the axle, which is indicated in red lines, Fig. 2, bears against a block, B, within the box A, and the body of the axle, which enters a short distance within the box, is encompassed by a packing, which consists of two movable slides, C D, of wood or any other suitable substance. The lower section of this packing is suspended by means of rods *a a*, which pass up through a bridge, E, and through spiral springs *b b*, and receive, upon

their upper ends, nuts *c c*, between which latter and the bridge E the springs *b b* are confined, as clearly shown in Fig. 3. The upper section, D, of the packing, works between the vertical guides *ee* of the lower section, C, and is supported upon shoulders which are formed at *i i* on the lower section. This section D is held down in its place upon the shoulders *i i* by means of a spring, *g g*, which is interposed between the bridge E and the upper end of the section D, and which encircles a guide-rod, *h*, that passes through said bridge, as shown in Figs. 1, 2, 3. By this arrangement it will be seen that the springs *b b* and *g* operate to force the two sections of the packing together, the upper section, D, being forced down upon the lower section, C, which latter is drawn upward and supported upon the springs *b b* by the adjusting-nuts *c c*, outside of the axle-box. By means of these nuts a person can raise or depress the packing and set it in the proper position to act uniformly upon the end of the axle, so as to hug this axle closely and prevent the entrance of dirt into the box A, or the escape of oil therefrom. As the operation of the two springs *b b* is to draw the lower section, C, of the packing upward, and that of the spring *g* to force the upper section downward, it will be seen that both sections C and D will rise and accommodate themselves to the wearing away of the brass journal-bearing B in the upper end of the axle-box.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. Fitting the sections of packing of a journal-box in such manner that they may be adjusted from the outside of the box, substantially as described.

2. Constructing a sectional packing, C D, so that the section D may move within the section C, in combination with a bridge-support, E, and springs, which are so applied as to keep such packing in place, substantially as described.

D. H. DOTTERER.

Witnesses:

W. W. DOUGHERTY,
FRANK A. SHUTE.