

(No Model.)

F. J. ROBERTS.

CAR AXLE BOX.

No. 289,934.

Patented Dec. 11, 1883.

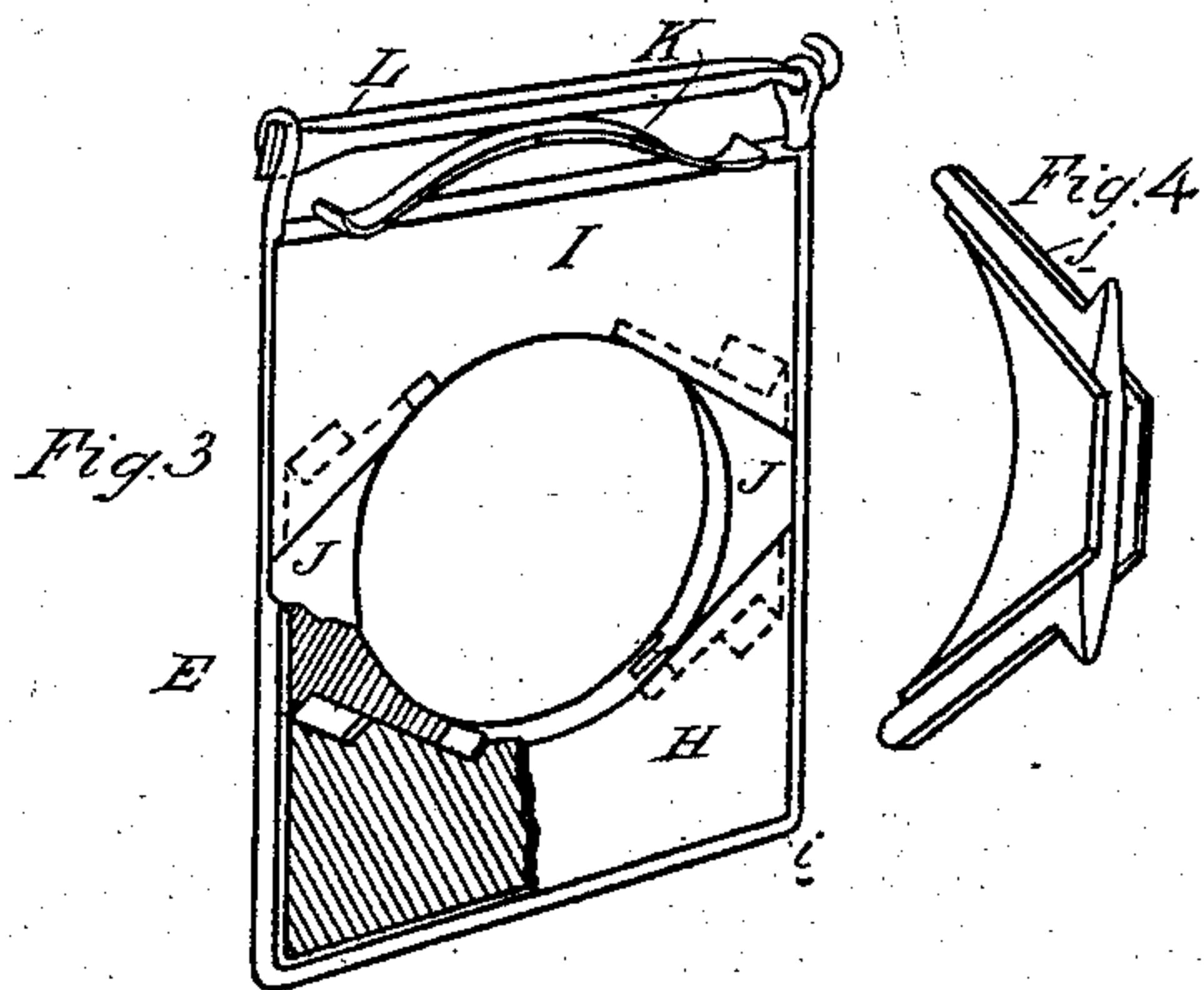


Fig. 1

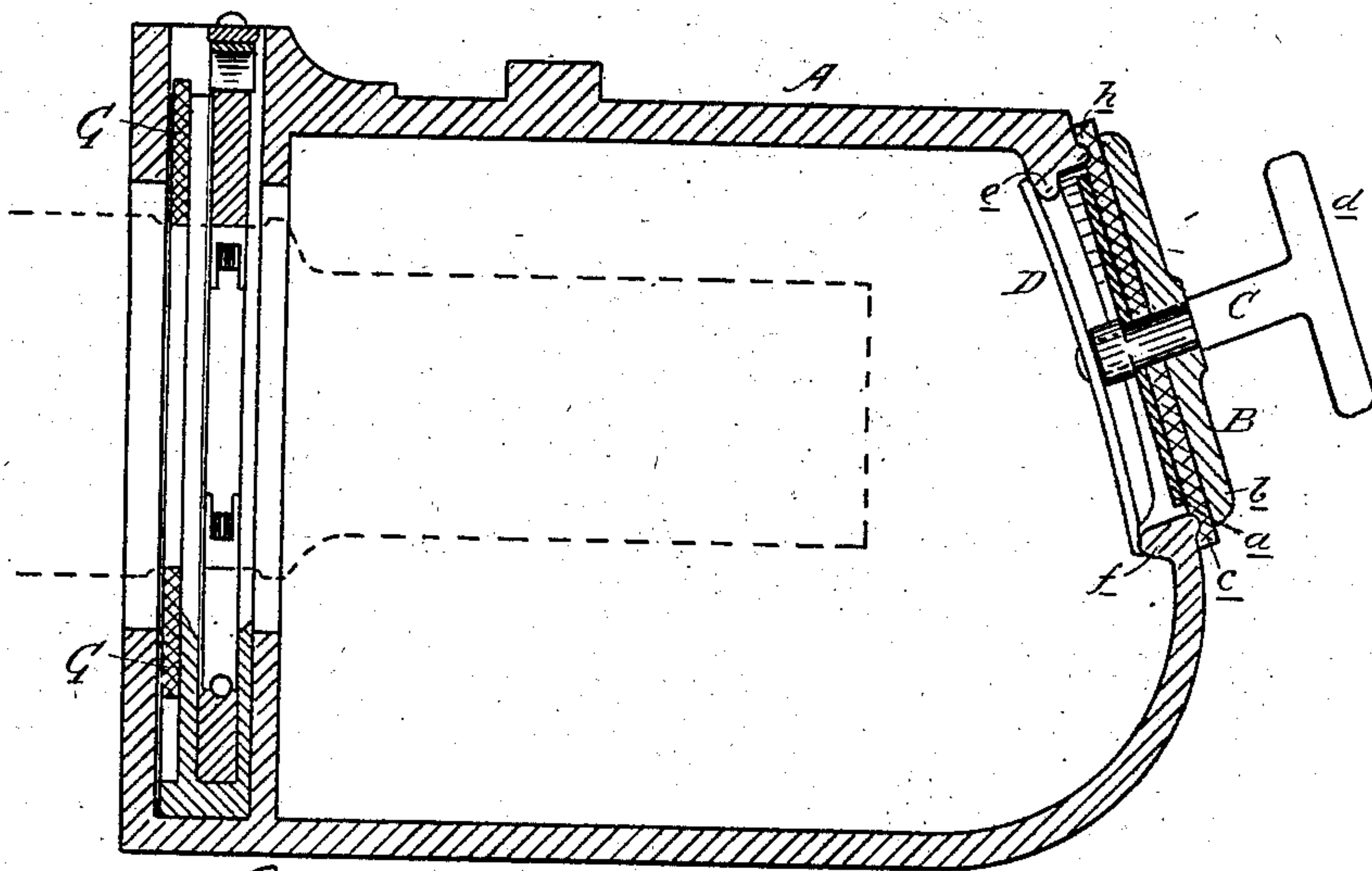
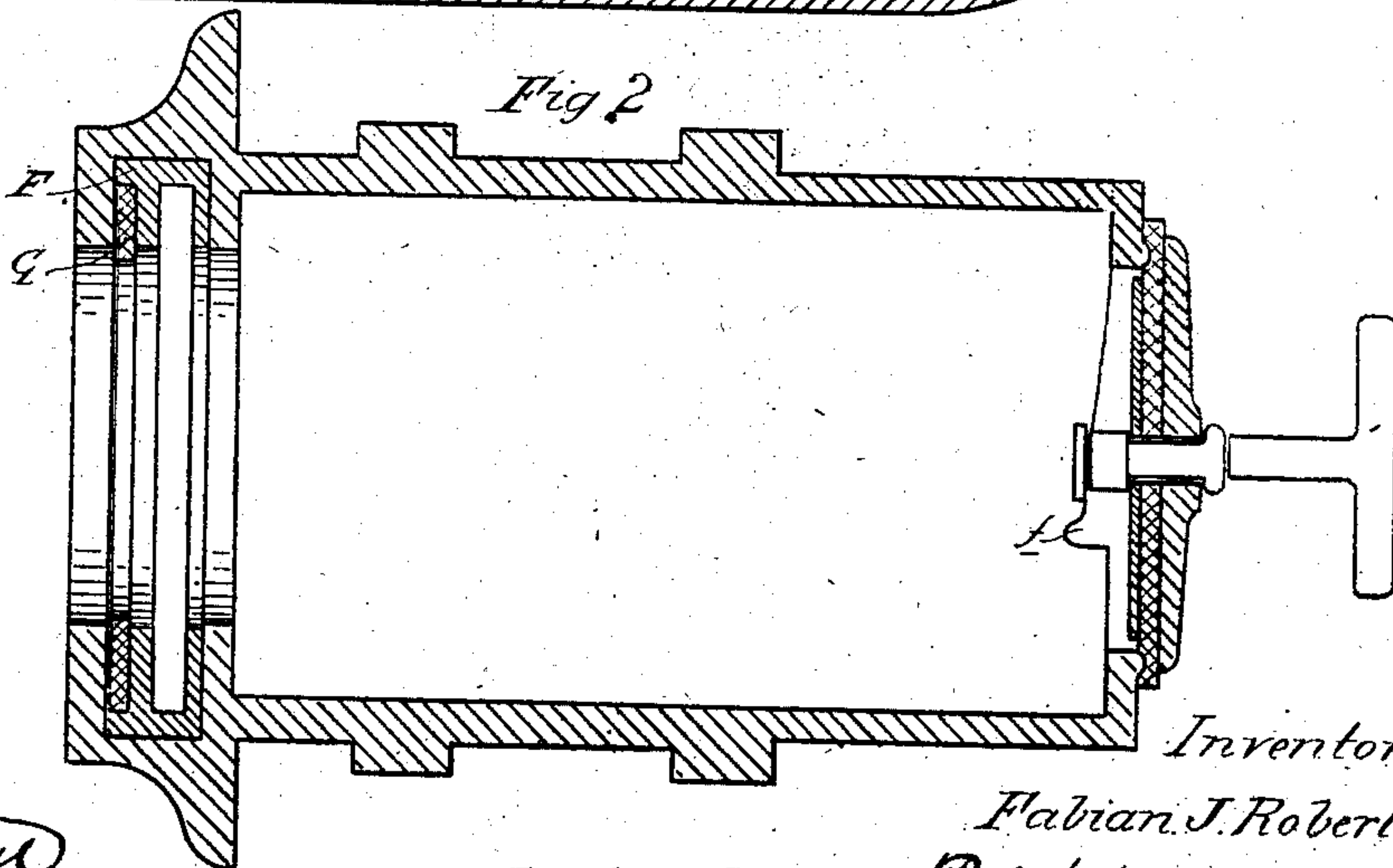


Fig. 2



Attest
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UNITED STATES PATENT OFFICE.

FABIAN J. ROBERTS, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-FOURTH
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CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 289,934, dated December 11, 1883.

Application filed October 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, FABIAN J. ROBERTS, of Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in 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, which form a part of this specification.

This invention relates to certain new and useful improvements in car-axle boxes.

The invention consists in the peculiar construction of the dust-guard for effectually preventing the admission of dust to the journals and to prevent the escape of oil; and, also, in the peculiar construction of the cover which closes the opening through which the lubricant is introduced, and in the peculiar construction, arrangement, and combinations of the various parts, all as more fully hereinafter set forth.

Figure 1 is a vertical central section of my improved car-axle box. Fig. 2 is a horizontal section of the same. Fig. 3 is a detached perspective of the dust-guard, partially in section. Fig. 4 is a detached perspective of one of the side pieces of the dust-guard.

In the accompanying drawings, which form a part of this specification, A represents the journal-box, which contains the packing and lubricant, and which also receives the end of the axle, as in the ordinary manner.

B represents the cover, which is designed to close the opening into the box through which the stuffing and lubricant are introduced. This cover consists of an inner plate, *a*, and an outer plate, *b*, between which is placed a sheet of rubber, *c*, or other suitable material, the whole being secured together by the bolt or rivet, *C*, the outer end of which terminates in a handle, *d*, while to the inner end is secured the button-bar *D*. At the upper side of the opening in the journal-box there is cast the downwardly-projecting flange *e*, while at the bottom there is formed the inwardly-projecting flange *f*, the face of which is tapering, as shown in Fig. 2, and entirely around the door-opening, and upon the outer face of the journal-box is cast or otherwise formed the bead *h*. When the door *B* is inserted so as

to cover the door-opening, the rubber packing-plate *c* rests against the bead *h*, when, by turning the handle *d*, the spring-button *D* is caused to engage with the two flanges *e f* and forcibly lock the door into position, while at the same time, by reason of this packing, an airtight joint is made between the two parts, precluding the possibility of leaking.

The rear end of the journal-box is provided with the usual slot for receiving the dust-guard *E*, which is constructed as follows:

i represents a suitable frame, which is designed to receive and retain in their proper positions the operating parts of my dust-guard, which fits snugly into the grooves in the sides and bottom of the wooden filling *F*, which in turn is inserted in the dust-guard slot at the rear end of the axle-box, and which also receives the wiper *G*. Within this frame *i*, I place the upper and lower sections, *I H*, of the dust-guard proper, which are cast from any suitable metal, and the edges of which are grooved, so as to fit and engage with the frame *i*. A portion of the inner edges of these sections *H I* are smooth, and are designed to come in contact with the axle upon the shoulder, while the remaining portion is grooved, as shown, and so inclined as to receive the upper and lower edges of the wedge-shaped side sections, *J*, which are provided with tongues *j* for this purpose, the inner faces or edges of these sections being designed to rest upon the collar of the axle, and forming, with the upper and lower sections, a complete guard entirely around the shoulder of the axle. By my peculiar construction and arrangement of the sections I require the use of but one spring, as *K*, which is held in position upon the top of the section by means of the gate or bar *L*, the action of the spring being to keep and retain the sections of the guard in contact with the shoulder of the axle at all times.

What I claim as my invention is—

1. In a car-axle box, and as a means for excluding dust through the door-opening thereof, the door *B*, provided with the elastic packing-plate *c*, and the spring-button *D*, constructed and arranged to rigidly secure the same in place, substantially as and for the purposes set forth.

2. A car-axle box provided with the flanges *ef* at the door-opening, and a bead, *h*, upon the outer face surrounding the door-opening, in combination with the door B, provided with
5 the elastic packing-plate *c*, and constructed to be secured to place by the engagement of a button or plate, D, with the said flanges *ef*, substantially as described.

3. In a car-axle box, and in combination
10 therewith, the channeled or grooved wood filling F, constructed and arranged to receive the dust-guard E and wiper G, substantially as set forth.

4. In a car-axle box, and as a means for ex-
15 cluding dust from the inner end thereof, the dust-guard E, consisting of the four sections H I J J, the two sections J J being wedge-shaped, with the butt of the wedge abutting

against the axle, and the sections H I constructed to press the sections J J toward the axle, substantially as described.

5. A dust-guard for car-axle boxes, consisting of the frame *i*, sections H I, spanning the frame, and the wedge-shaped sections J J, spring K, and gate L, when constructed, arranged, and operating substantially in the manner and for the purposes set forth.

6. In combination with the car-axle box A, the wood filling F, wiper G, and dust-guard E, the whole constructed, arranged, and operating in the manner and for the purposes specified.

FA. J. ROBERTS.

Witnesses:

H. S. SPRAGUE,

E. W. ANDREWS.