

(No Model.)

E. LEWIS & F. ARMSTRONG.

CAR AXLE BOX.

No. 379,651.

Patented Mar. 20, 1888.

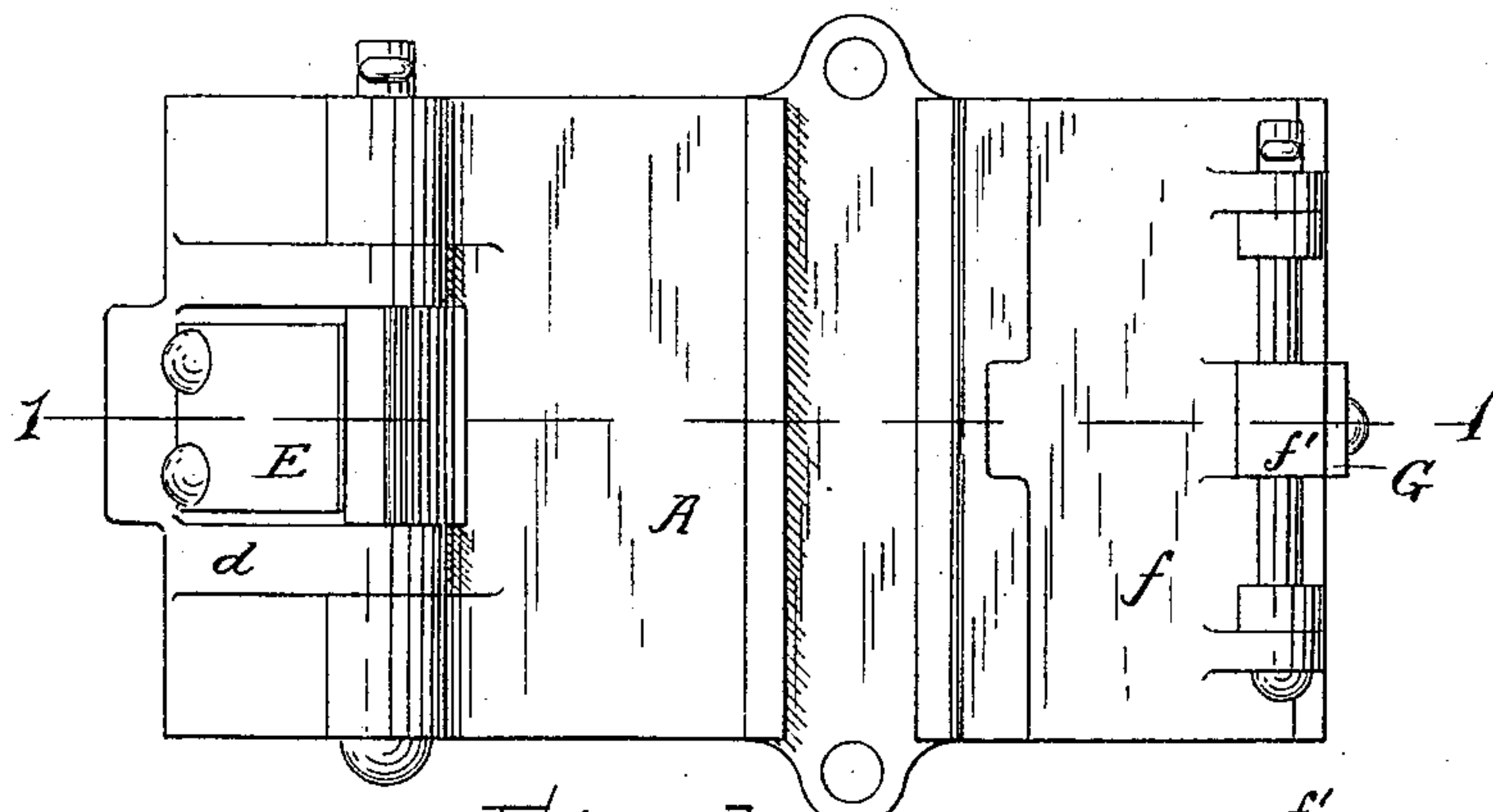


Fig. 1

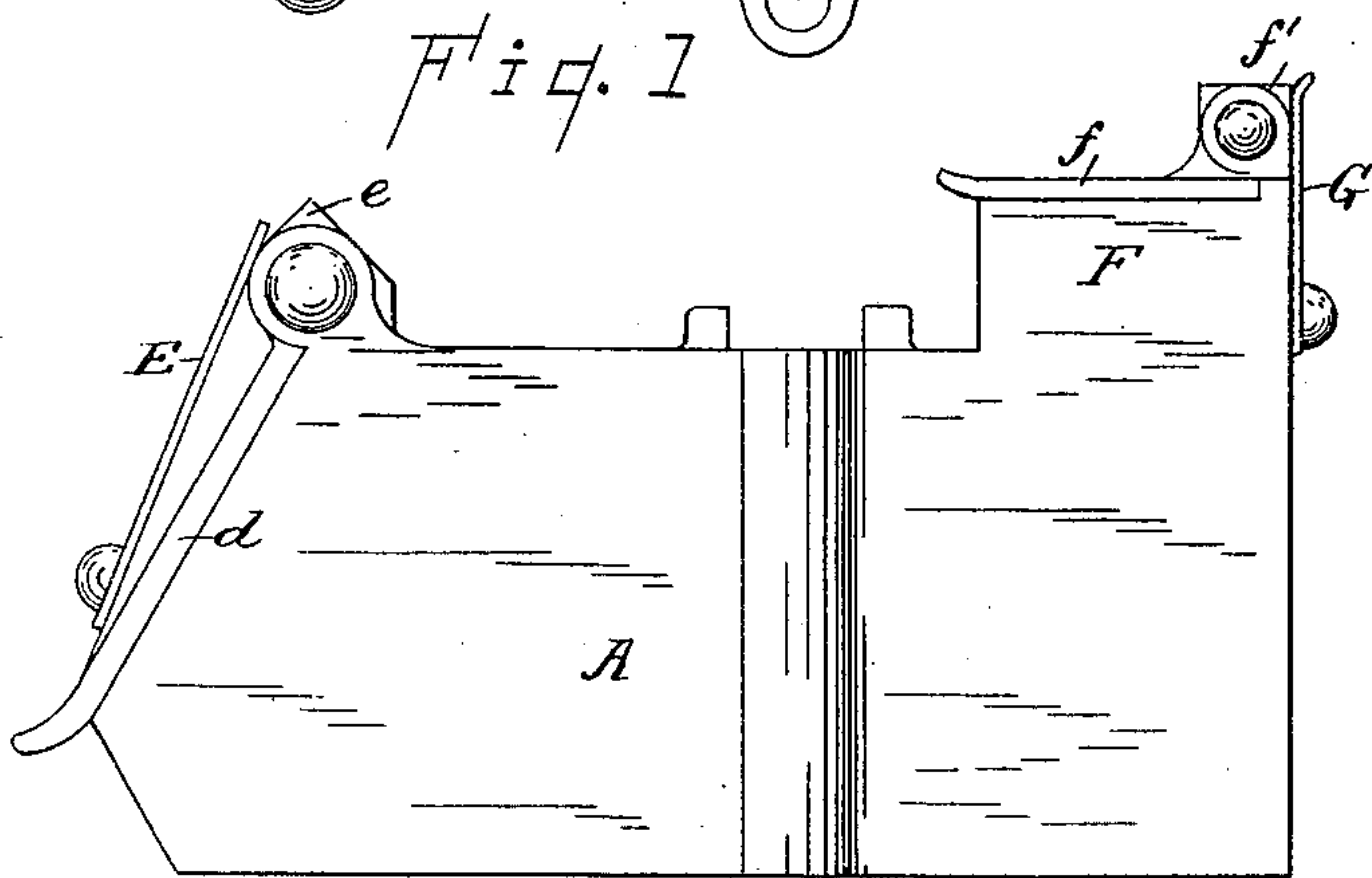


Fig. 2

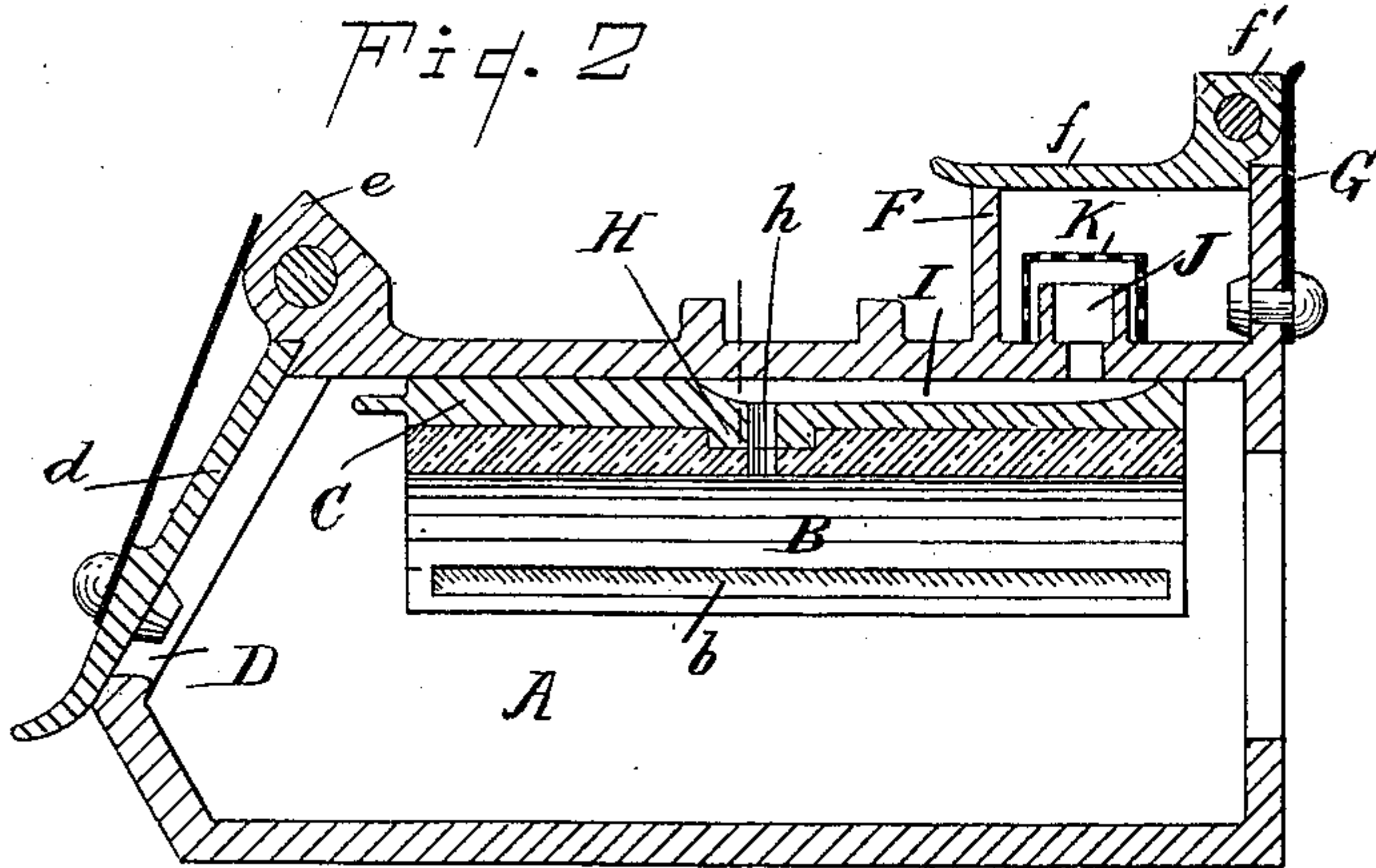


Fig. 3

WITNESSES:

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EVAN LEWIS AND FREDERICK ARMSTRONG, OF KINGSTON, PENNSYLVANIA.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 379,651, dated March 20, 1888.

Application filed September 9, 1887. Serial No. 249,243. (No model.)

To all whom it may concern:

Be it known that we, EVAN LEWIS and FREDERICK ARMSTRONG, citizens of the United States, residing at Kingston, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Car-Axle Boxes; and we 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.

This invention relates to the axle-boxes of railroad-cars; and it consists in the novel combination and construction of the parts herein after fully described and claimed, whereby the axle may receive additional lubrication when it becomes heated.

In the drawings, Figure 1 is a plan view of the axle-box, and Fig. 2 is a side view of the same. Fig. 3 is a longitudinal section through the box, taken on the line 1 1 in Fig. 1.

A is the axle-box, which is supported in the car-frame in the ordinary manner.

B is the brass bearing, provided with longitudinal oil-grooves *b* and supported upon the seat C within the box. The lower portion of the box forms a chamber for oil or other lubricant, which is supplied through the opening D, provided with a hinged cover, *d*.

E is a spring riveted to the cover *d*, and *e* is a stop upon the box for the spring to bear against and hold the cover open or closed, as desired. The lubricant in the box A is supplied to the under side of the axle in the ordinary manner.

F is a grease-chamber on top of box A. This chamber is provided with the hinged cover *f*, having the stop *f'*; and G is a spring riveted to the box for holding the cover F open or closed. A boss, H, is formed upon the seat C, which fits within a corresponding recess in the brass. A hole, *h*, is formed through the boss and communicates with the groove I in the seat.

J is a short tube extending upwardly within the chamber F, and K is a perforated strainer which covers the open end of the said tube. Grease is placed within the chamber F, and when the axle becomes hot the heat is communicated to the grease, which melts, and after

passing through the strainer flows down the tube J, along the groove I, and through the hole *h* onto the top of the axle.

No fusible plug is placed in the tube, as the grease used is sufficiently stiff to be solid at ordinary temperatures. When the grease melts, the larger impurities of a fibrous nature are removed by the strainer, and the small heavy impurities—such as sandy particles—collect by gravity around the outside of the base of tube J, so that only pure lubricant is supplied to the axle.

What we claim is—

1. The combination, with a car-axle box provided with ordinary means for lubrication, of the grease-chamber on top of the box and communicating with the top of the axle, separate openings and covers for supplying lubricant to the main box and to the said chamber, and the springs E and G, and the stops *e* and *f'*, secured to the covers and to the box, as set forth, for holding the said covers open or closed, substantially as set forth.

2. The combination, with the car-axle box A, of the grease-chamber on top of the box, the seat C within the box, provided with the boss H and groove I, the axle-brass connected with the said groove by the hole *h* and provided with a recess for the boss, and a short tube connecting the said groove with the interior of the grease-chamber, substantially as and for the purpose set forth.

3. The combination, with a car-axle box, A, of the grease-chamber on top of the box, the seat C within the box, provided with the boss H and groove I, the axle-brass connected with the said groove by the hole *h* and provided with a recess for the boss, a short tube connecting the said groove with the interior of the grease-chamber, and the strainer covering the opening of the said tube within the grease-box, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

EVAN LEWIS.

FREDERICK ARMSTRONG.

Witnesses:

GEO. GUNTZ,

GEO. A. WELLS.