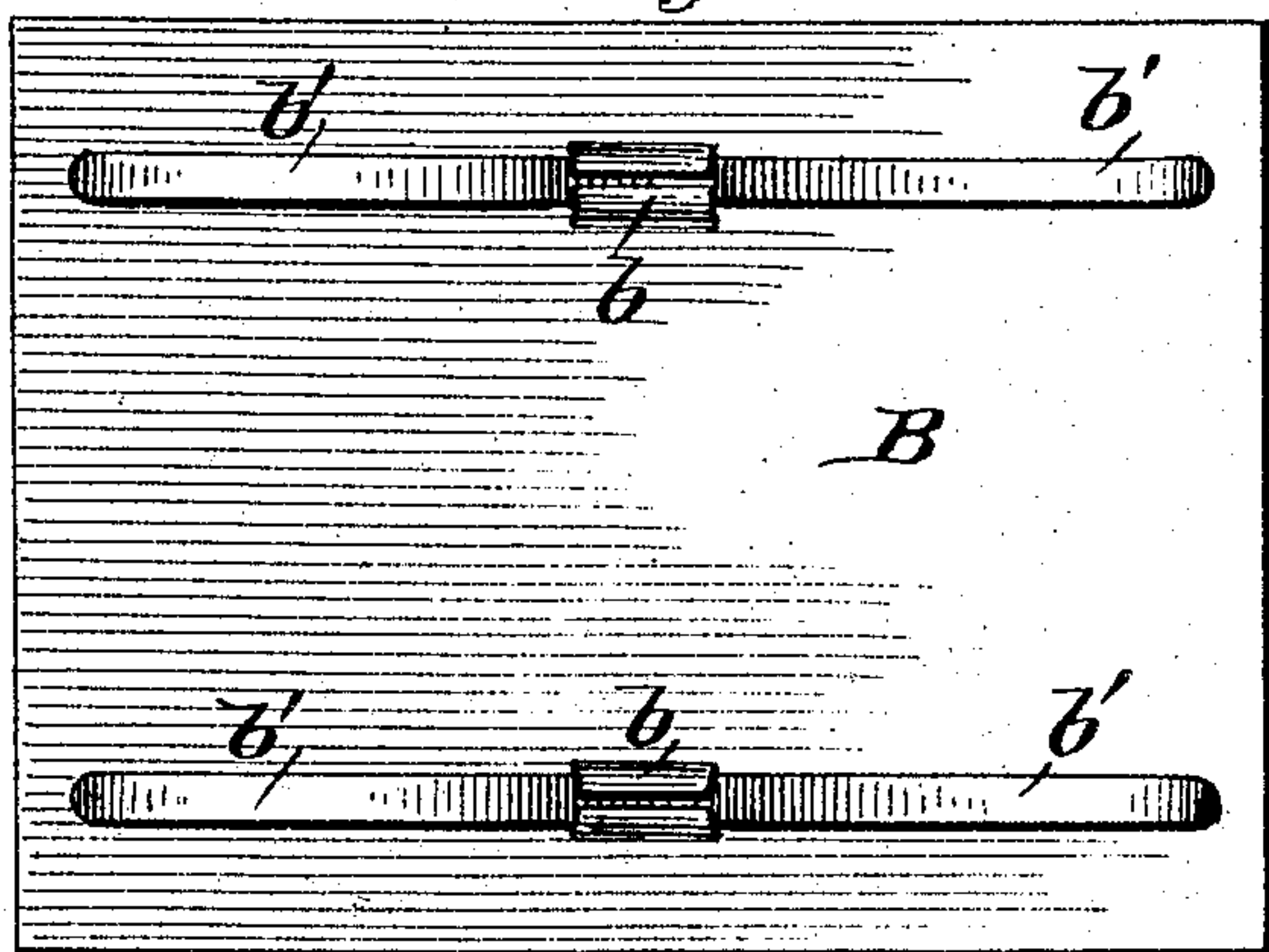
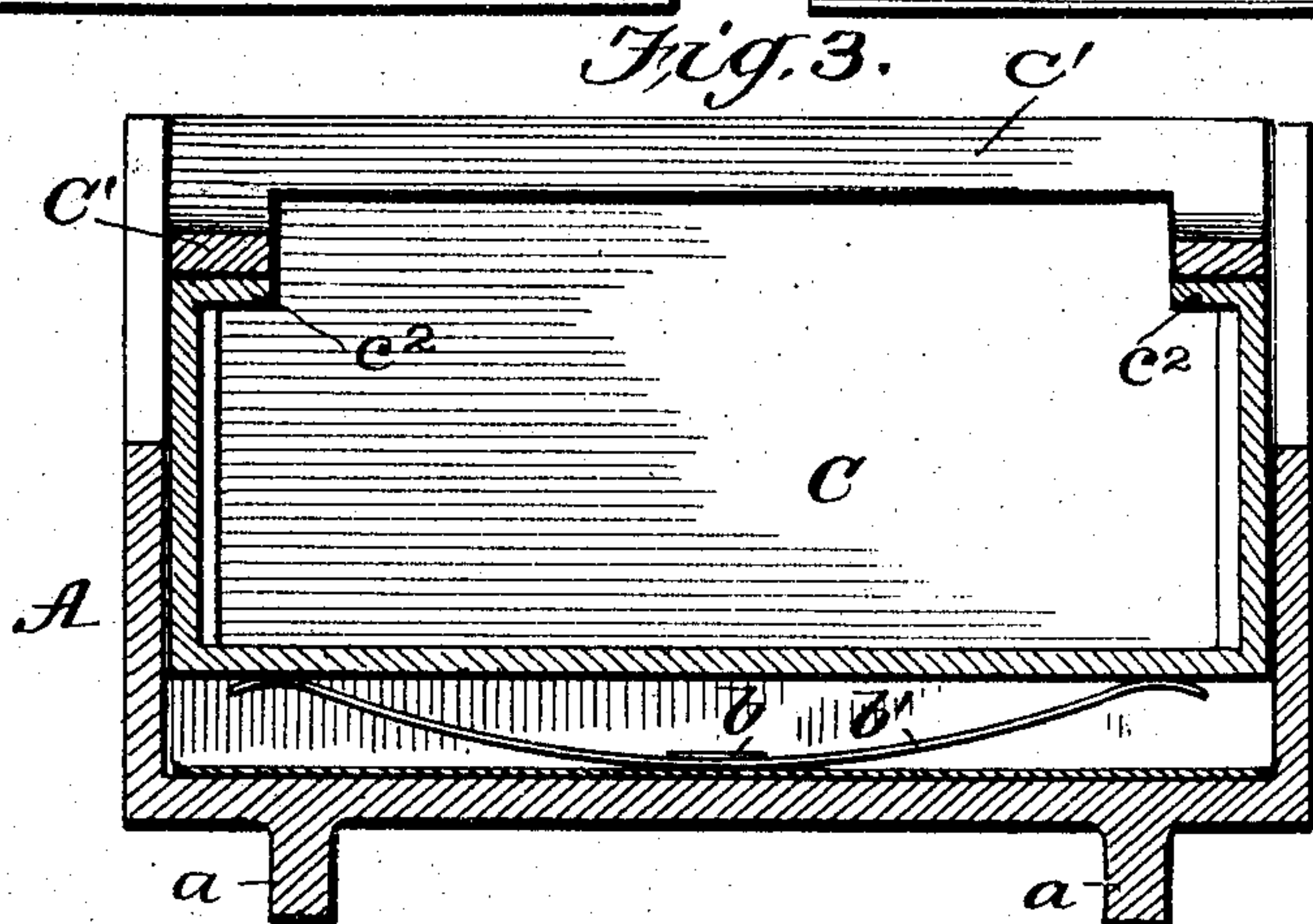
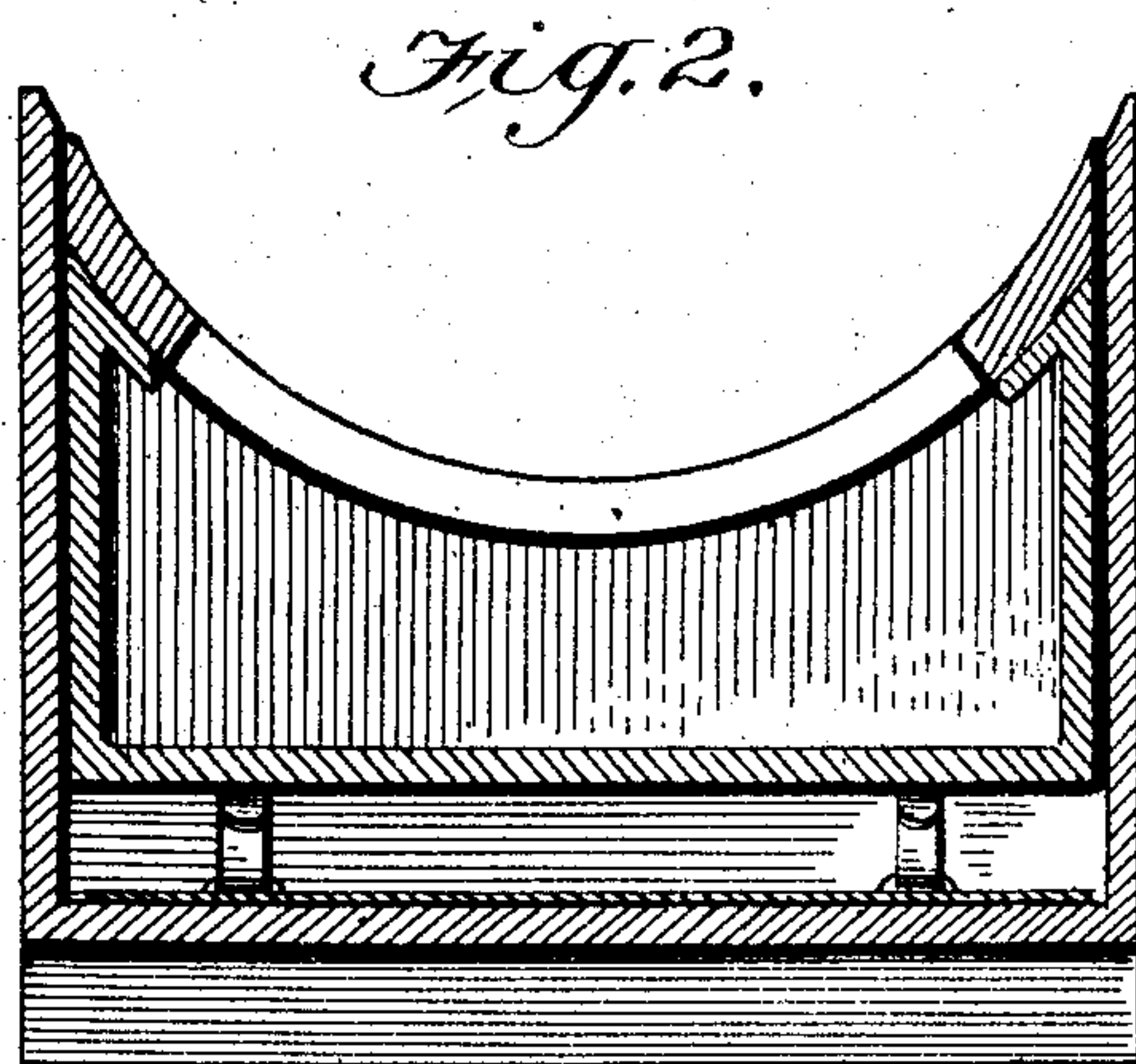
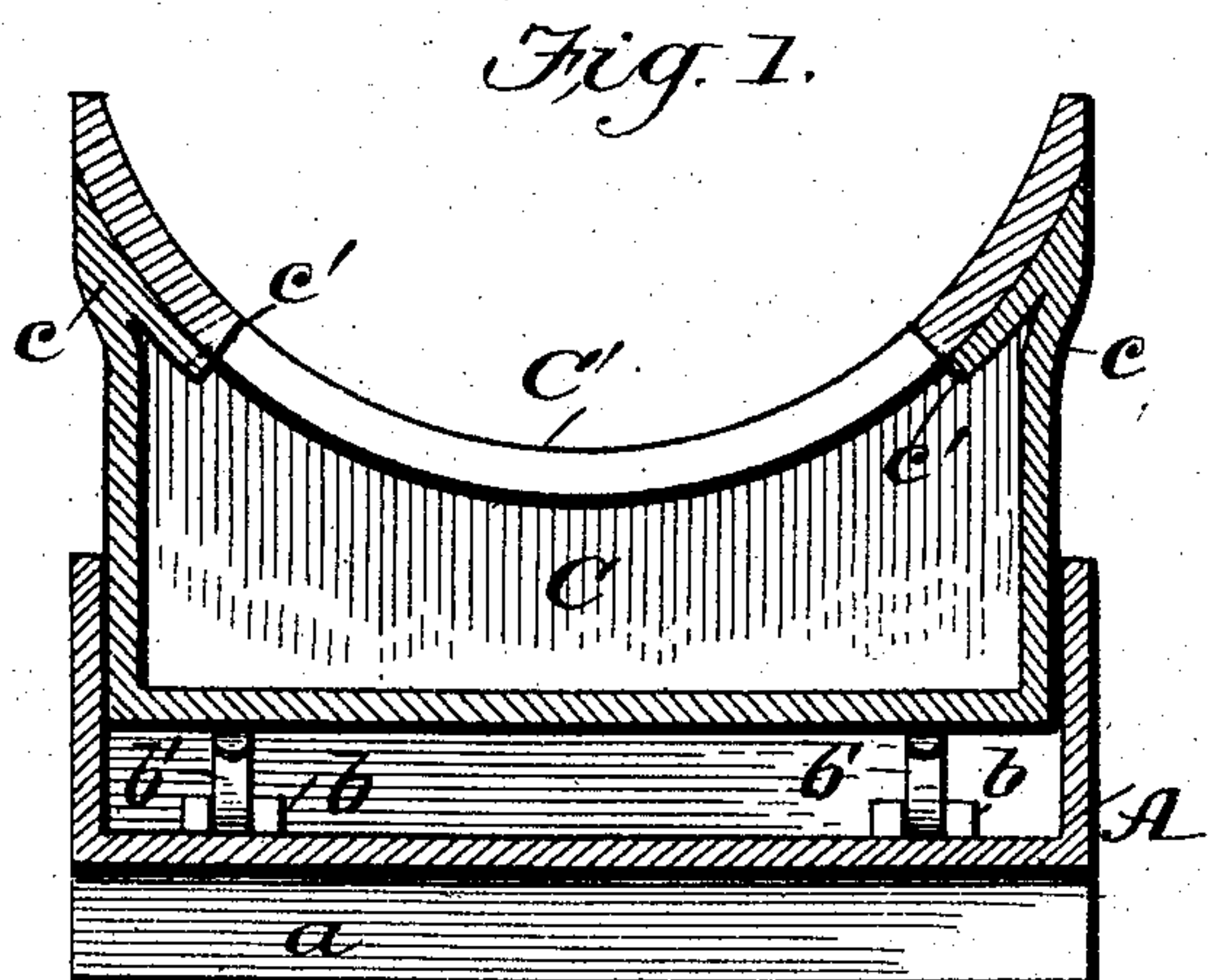


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PATENTED MAY 16, 1905.

T. V. MONROE & M. HALLINAN.  
LUBRICATING BEARING FOR AXLE JOURNALS.

APPLICATION FILED AUG. 31, 1904.



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# UNITED STATES PATENT OFFICE.

THOMAS V. MONROE AND MARK HALLINAN, OF CLINTON, IOWA.

## LUBRICATING-BEARING FOR AXLE-JOURNALS.

SPECIFICATION forming part of Letters Patent No. 790,220, dated May 16, 1905.

Application filed August 31, 1904. Serial No. 222,815.

*To all whom it may concern:*

Be it known that we, THOMAS V. MONROE and MARK HALLINAN, citizens of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented a new and useful Improvement in Lubricating-Bearings for Axle-Journals, of which the following is a specification.

Our invention relates to an improvement in bearings for locomotive axle-journals, and has for its object to provide a simple, cheap, and efficient device of the character mentioned and one which can be readily applied to the journal-boxes now in use.

Our invention consists in certain features of construction, arrangement, and combination of parts, as will be hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a transverse section of our improvement. Fig. 2 is a similar view of a slightly-different form of the device. Fig. 3 is a longitudinal sectional view. Fig. 4 is a top plan of the spring retaining-plate. Fig. 5 is a fragmentary sectional view of the plate, retaining-lugs, and spring.

In carrying out our invention we use an outer or lower cellar A, which is provided with the transverse ribs *aa*, projecting downwardly from the lower surface of said cellar. The side walls of this cellar extend upwardly a short distance, and the end walls are cut out in a curve corresponding to the curvature of the journal of the axle. A galvanized plate B is fitted within the cellar A and rests on the floor thereof. Said plate has on opposite sides struck-up lugs *b*, which project toward each other and form a retainer for the curved springs *b'*, the free ends of which project upwardly and bear against the lower face of the inside or upper cellar C. Said cellar C is somewhat similar in general structure to the outer cellar, except that the side walls of cellar C are swelled outwardly and enlarged, as at *c*, and then bent inwardly upon themselves to form the inturned flanges *c'*. The upper surface of these flanges is curved, and secured in any suitable manner upon said flanges is the Babbitt-metal open bearing-plate C', the curvature of the upper surface of which coincides with that of the circumference of the journal

of the axle. The enlarged or swelled-out upper portion *c* of the inner cellar C will prevent the said cellar being forced too far downwardly into the lower cellar A, and thus protect the springs *b'* from breakage. The end walls of the inner cellar, it will be observed, are also curved to correspond with the curvature of the journal of the axle, and said end walls are also provided at the upper ends with the inturned flanges *c'*.

As shown in Fig. 2, we may use our improved inner cellar with the ordinary outer cellar where the users decline to cut down the side walls of the outer cellar. In this form the side walls of the inner cellar are not enlarged or swelled outwardly, and the said inner cellar fits and moves within the outer cellar upon the springs secured to the plate in the bottom of the lower cellar.

When new cellars are cast, the lugs which retain the springs in place may be cast integral with it, and thus do away with the galvanized plate.

It will of course be understood that the ordinary brass will be used on top of the journal of the axle and the top of the box will be of the ordinary construction.

The oil and waste are placed within the upper cellar, and the waste projects through the open center of the bearing-plate against the journal of the axle. The waste is held in place and prevented from rolling by the inturned flanges *c' c'*.

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

1. A bearing for journals, comprising a lower or outer cellar, having side and end walls and provided with ribs projecting downwardly from its lower surface, springs resting on the floor of said cellar and projecting upwardly at each end, an upper or inner cellar having side and end walls fitting within said outer cellar, the side walls bent outwardly and then back upon themselves to form inwardly-projecting flanges, and a curved plate of bearing metal secured to said inturned flanges.

2. A bearing for journals, comprising a lower or outer cellar, an upper or inner cel-

lar having inturned flanges at the upper end of its vertical walls and fitting within said outer cellar, a curved plate of bearing metal secured to said inturned flanges, and springs 5 interposed between the lower face of the inner cellar and the floor of the outer cellar.

3. A bearing for journals, comprising a lower or outer cellar, a plate located on the floor of said cellar, said plate having retain- 10 ing-lugs at each side and plate-springs held by said retaining-lugs, and an upper or inner cellar fitting within said outer cellar and having end and side walls, said side walls being bent outwardly and then inwardly at their 15 upper ends to form inturned flanges, and a curved plate of bearing metal secured to said inturned flanges.

4. A cellar for lubricating journals, comprising bottom, side and end walls, said side

and end walls having at their upper ends 20 curved inturned flanges, and an open center curved bearing-plate secured to the upper surface of the inturned flanges.

5. A bearing for journals, comprising a lower or outer cellar having side and end walls, 25 an upper or inner cellar having side and end walls, the side walls being flared outwardly near their upper ends, said side and end walls having curved inturned flanges at their upper ends, an open plate of bearing metal secured 30 to the upper surface of the inturned flanges, and elastic means for forcing the upper cellar upwardly.

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