

No. 627,456.

Patented June 20, 1899.

T. W. GREEN.
JOURNAL BOX.

(Application filed Feb. 24, 1899.)

(No Model.)

Fig. 1.

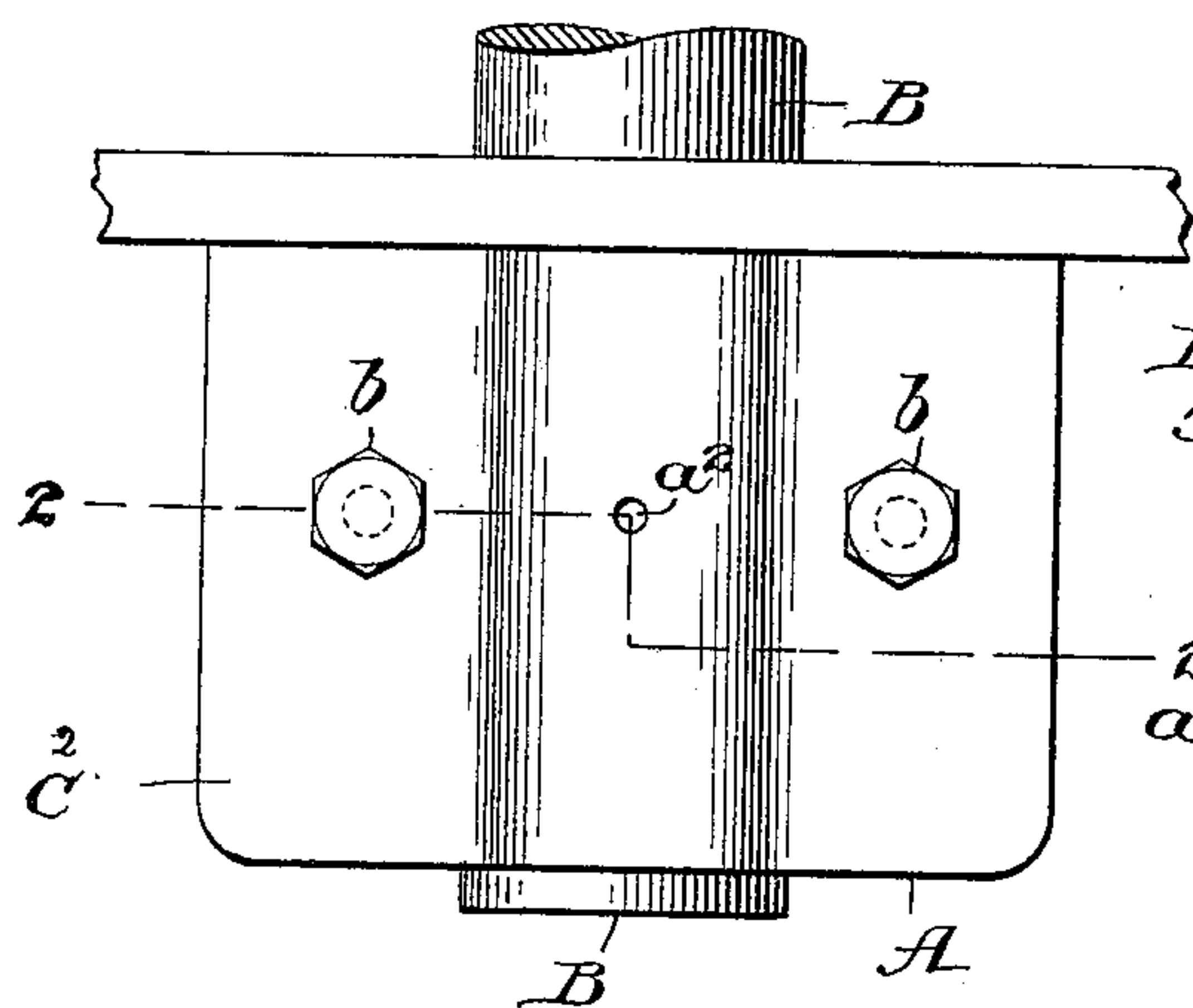


Fig. 2.

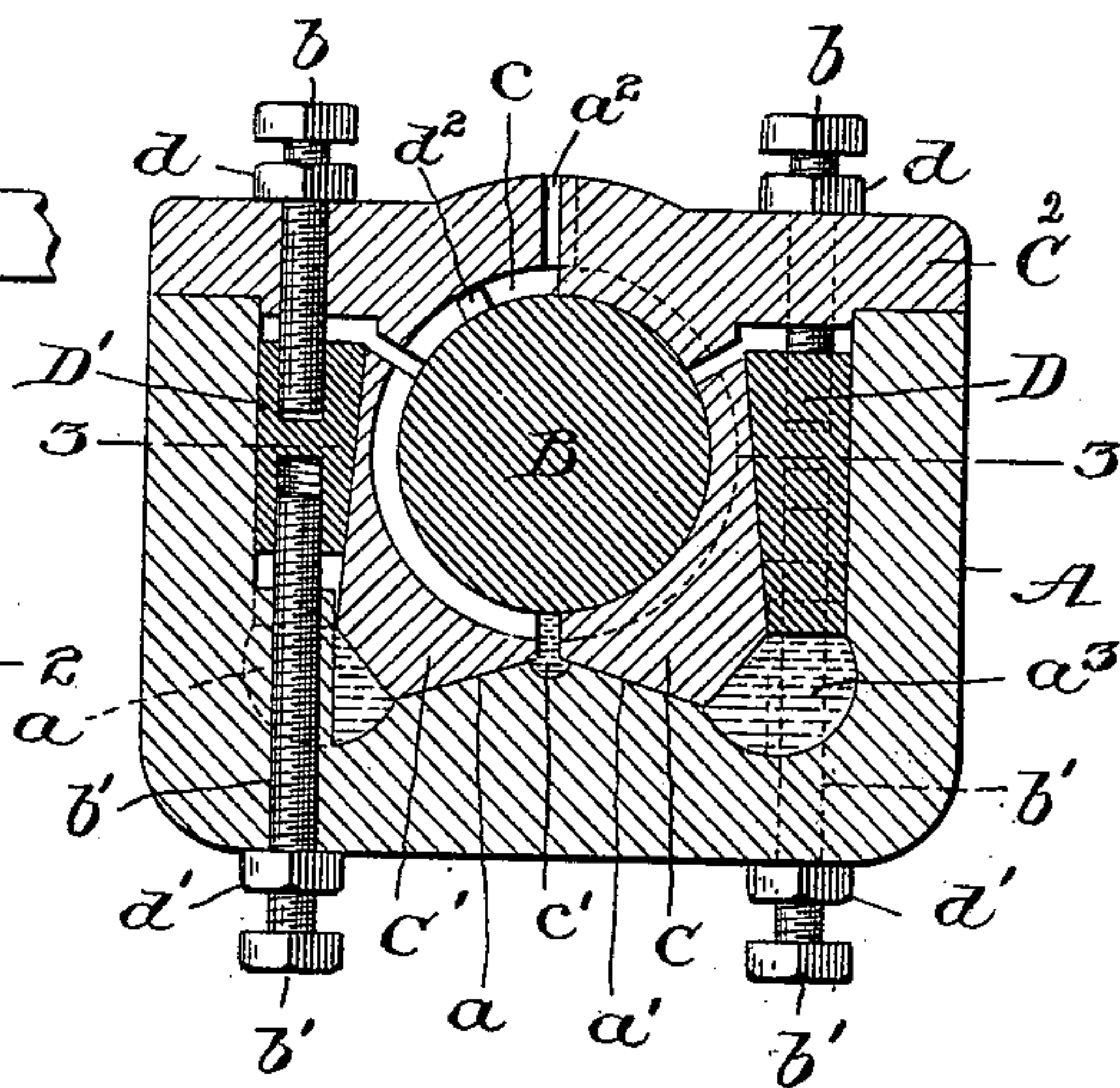
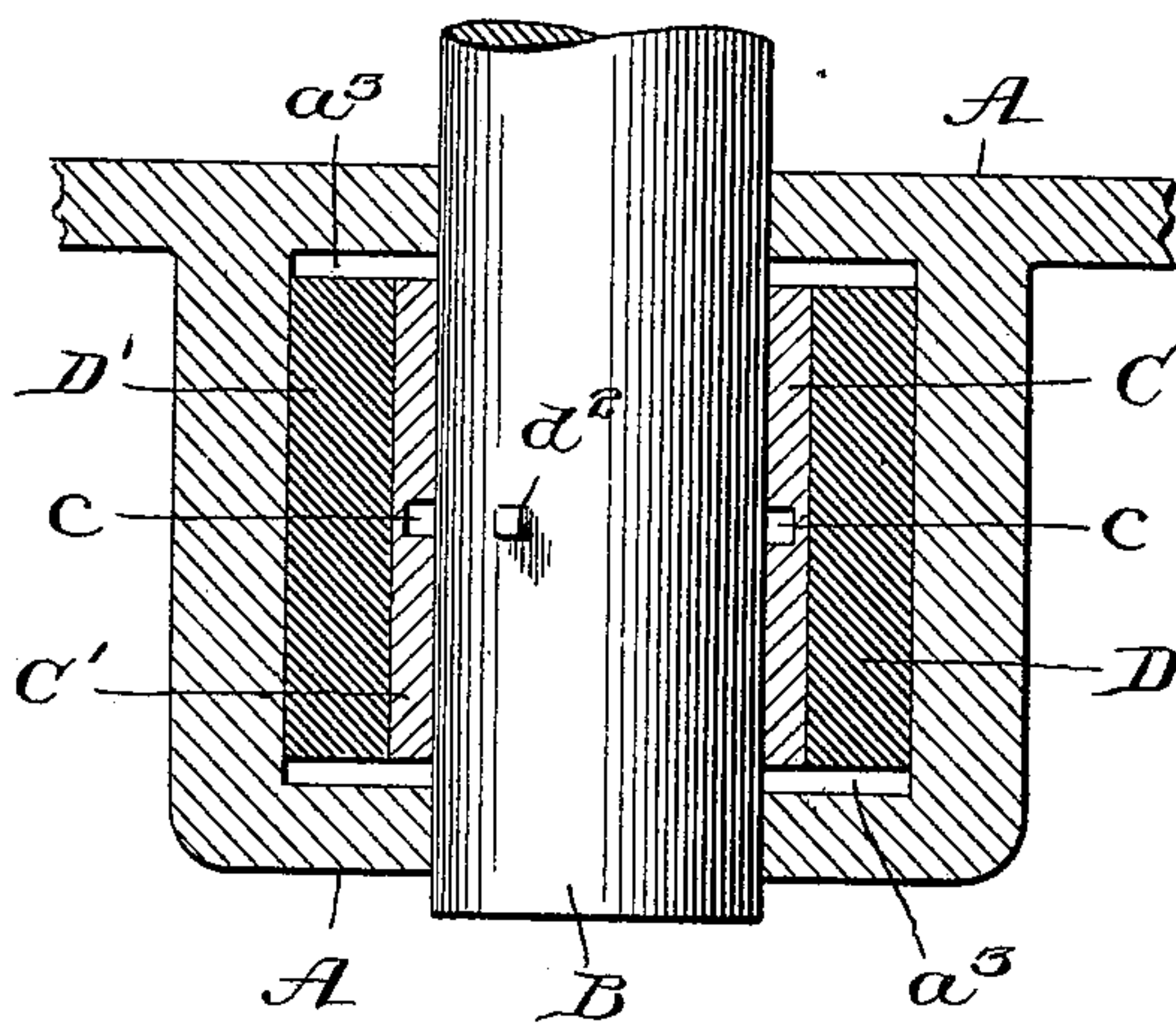


Fig. 3.



WITNESSES:

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JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 627,456, dated June 20, 1899.

Application filed February 24, 1899. Serial No. 706,716. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. GREEN, a citizen of the United States, residing in Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Journal-Boxes; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to journal-boxes, and has special reference to that class of journal-boxes in which heavy and rapidly-revolving shafts are supported.

The objects of my improvement are to so construct the journal that the slightest wear on either the box or the journal may be easily and accurately taken up and to provide a simple and efficient means for distributing oil over the journals of the shafts.

To accomplish the desired results, I construct the box and journal in the manner hereinafter described and more particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my improved box. Fig. 2 is a vertical section as on line 2 2 of Fig. 1. Fig. 3 is a horizontal section as on line 3 3 of Fig. 2.

A represents the body of the journal-box and is usually made rectangular in shape and closed at the sides and bottom, so as to retain the oil for keeping the shaft-journal lubricated.

B is the journal in the box and supported by the bearing-blocks C and C'. These blocks are preferably made so as to extend more than half the distance around the shaft and are beveled on their under side to conform to and rest upon the beveled portions $a a'$ in the bottom of the journal-box in the manner shown in Fig. 2 of the drawings.

D D' are wedges interposed between the side walls of the box and the bearing-blocks C C'. These wedges form lateral supports for the blocks C C' and are vertically adjust-

able by means of the screw-threaded bolts $b b$ passing through the removable top C² of the box. $b' b'$ are similar bolts passing through the bottom of the box.

$d d$ and $d' d'$ are lock-nuts on the bolts b and b' , respectively.

From the foregoing construction it will be seen that if the wedges D be moved downwardly by means of the bolts b and b' the bearing-block will be forced inwardly and directly toward the center of the journal, thus taking up any wear upon either of these parts.

The lower portion of the journal-box is constructed so as to form a reservoir into which the oil that is introduced through the opening a^2 in the top or cover will flow.

$a^3 a^3$ are two oil-channels formed in the bottom of the box and extending parallel with the journal on opposite sides thereof. (See Fig. 2.)

c is an annular groove formed in the bearing-blocks C C' and cap C²—the parts of the journal-box that lie in contact with the journal.

d^2 is a short projection formed on the journal and fitting into the annular groove c .

In order that the journal-box may be oil-tight and no oil be lost, the parts of the box through which the bottom screw-bolts $b' b'$ extend are made solid up to the highest point at which it is desired to keep the level of the oil.

c' is an oil-groove in the top of the beveled portion of the bottom of the journal-box. This groove extends the whole length of the bearing-blocks and parallel therewith.

The oil needed for lubricating the shaft being poured in through the opening a^2 in the cover of the journal-box flows over the shaft and down through the horizontal groove c' into the oil-channels $a^3 a^3$, filling them up until the oil will stand at such a level that it can be reached by the projection d^2 on the journal, when it will be carried up and again distributed over the revolving journal.

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

1. A journal-box having in the base thereof an oil-reservoir, and the bottom, intermediate

thereof, beveled in opposite directions, beveled bearing-blocks resting upon the bevels on the bottom, and suitable wedge-blocks interposed between said bearing-blocks and the
 5 sides of the journal-box, and means for adjusting said wedge-blocks to cause the bearing-blocks to rise and approach each other, as set forth.

2. A journal-box having its bottom beveled
 10 in opposite directions, bearing-blocks C C' having their bottom sides beveled to fit and rest upon the beveled portion of the bottom, in combination with wedge-shaped blocks interposed between said bearing-blocks and the
 15 inside walls of the journal-box, and means for adjusting said wedge-shaped blocks to cause the bearing-blocks to rise and approach each other, substantially as described.

3. A journal-box having the bottom portion
 20 thereof beveled in opposite directions, bearing-blocks C C' having their bottom sides beveled to fit and rest upon the beveled portion of the bottom, said blocks being also provided with beveled sides, in combination with wedge-
 25 shaped blocks interposed between said beveled sides and the inside wall of the journal-box, and means for operating said wedged blocks to adjust the bearing-blocks, substantially as described.

30 4. A journal-box having in the base thereof an oil-reservoir and the bottom, intermediate thereof, beveled in opposite directions, beveled bearing-blocks resting upon the bevels on the bottom, a longitudinal groove inter-
 35 posed between the said bearing-blocks and connected with the oil-reservoir, wedge-shaped adjusting-blocks interposed between the bearing-blocks and the sides of the journal-box, and means for adjusting said wedge-
 40 shaped blocks to cause the bearing-blocks to

rise on said inclines and approach each other, substantially as set forth.

5. A journal-box having in the base thereof an oil-reservoir and the bottom portion beveled in opposite directions, beveled bearing-
 45 blocks, said blocks being provided with a groove, a journal having a projection adapted to work in said groove, and interposed wedges that rest against the opposite sides of the journal-box, and adjustably hold said blocks in
 50 place, substantially as set forth.

6. A journal-box having its bottom beveled in opposite directions, bearing-blocks C, C' having their bottom sides beveled to fit and rest upon the beveled portion of the bottom,
 55 in combination with suitable means to cause the said bearing-blocks to rise and approach each other, as set forth.

7. A journal-box having its bottom portion beveled, bearing-blocks C, C' having their
 60 bottom sides also beveled to fit and rest upon the beveled portion of the bottom of said box, in combination with means for causing said blocks to approach each other and fit up
 65 around a journal, as set forth.

8. A journal-box, provided with oil-reservoir in the bottom portion and having the parts that lie against the journal of the shaft provided with annular groove in combination
 70 with a journal having integral therewith a projection adapted to travel in said annular groove for the purpose of carrying the oil from the oil-reservoir to the top of the shaft and journal-box, substantially as shown.

In testimony whereof I affix my signature
 75 in presence of two witnesses.

THOMAS W. GREEN.

Witnesses:

THOS. D. MOWLDS,
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