

No. 767,182.

PATENTED AUG. 9, 1904.

J. W. STEPHENSON.
JOURNAL BOX.

APPLICATION FILED APR. 30, 1903.

NO MODEL.

3 SHEETS—SHEET 1.

Fig. 2.

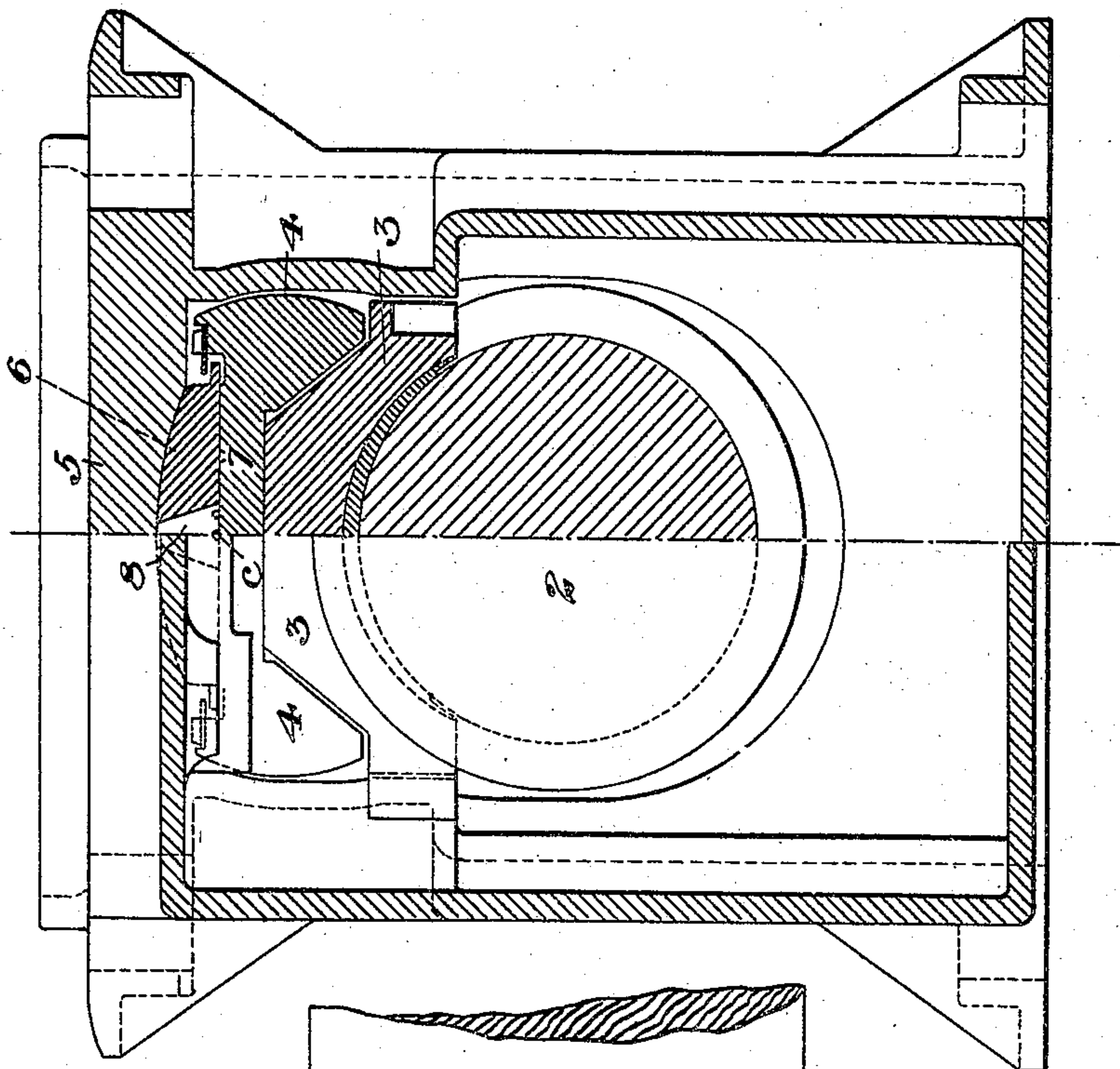
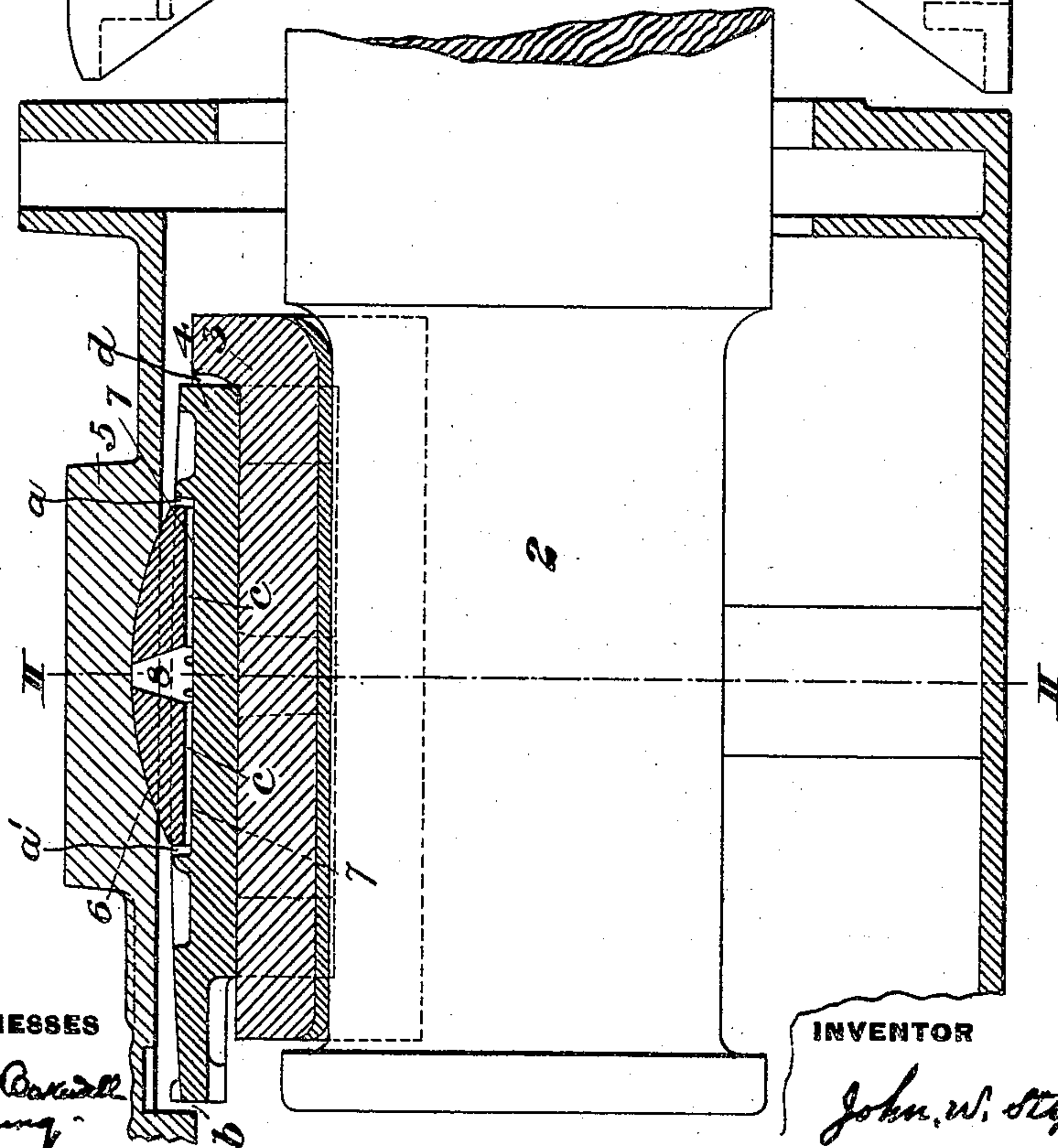


Fig. 1.



WITNESSES

Thomas W. Corwell
J. Manning

INVENTOR

John W. Stephenson

J. W. STEPHENSON.
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3 SHEETS—SHEET 3.

Fig. 9.

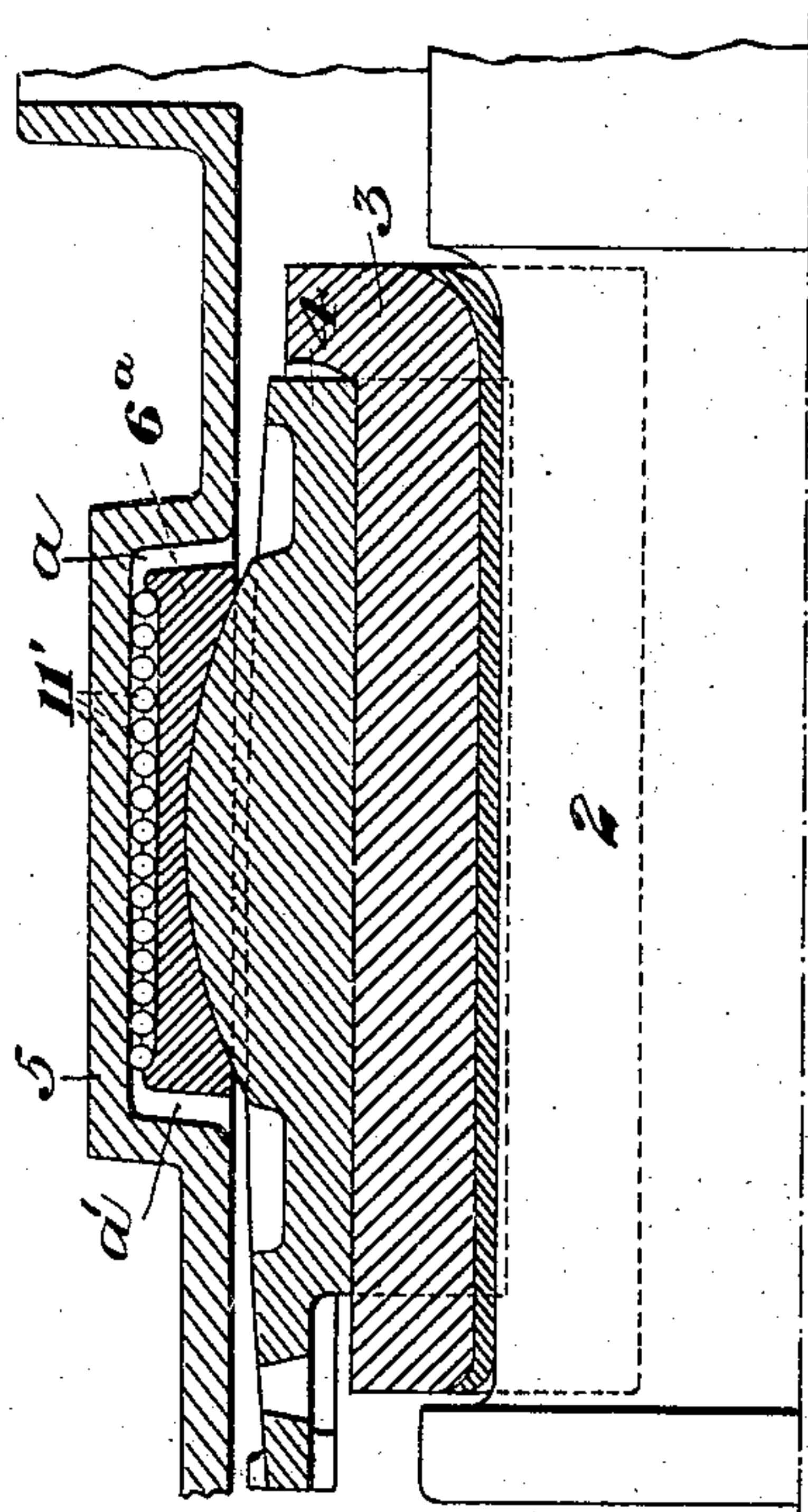


Fig. 10.

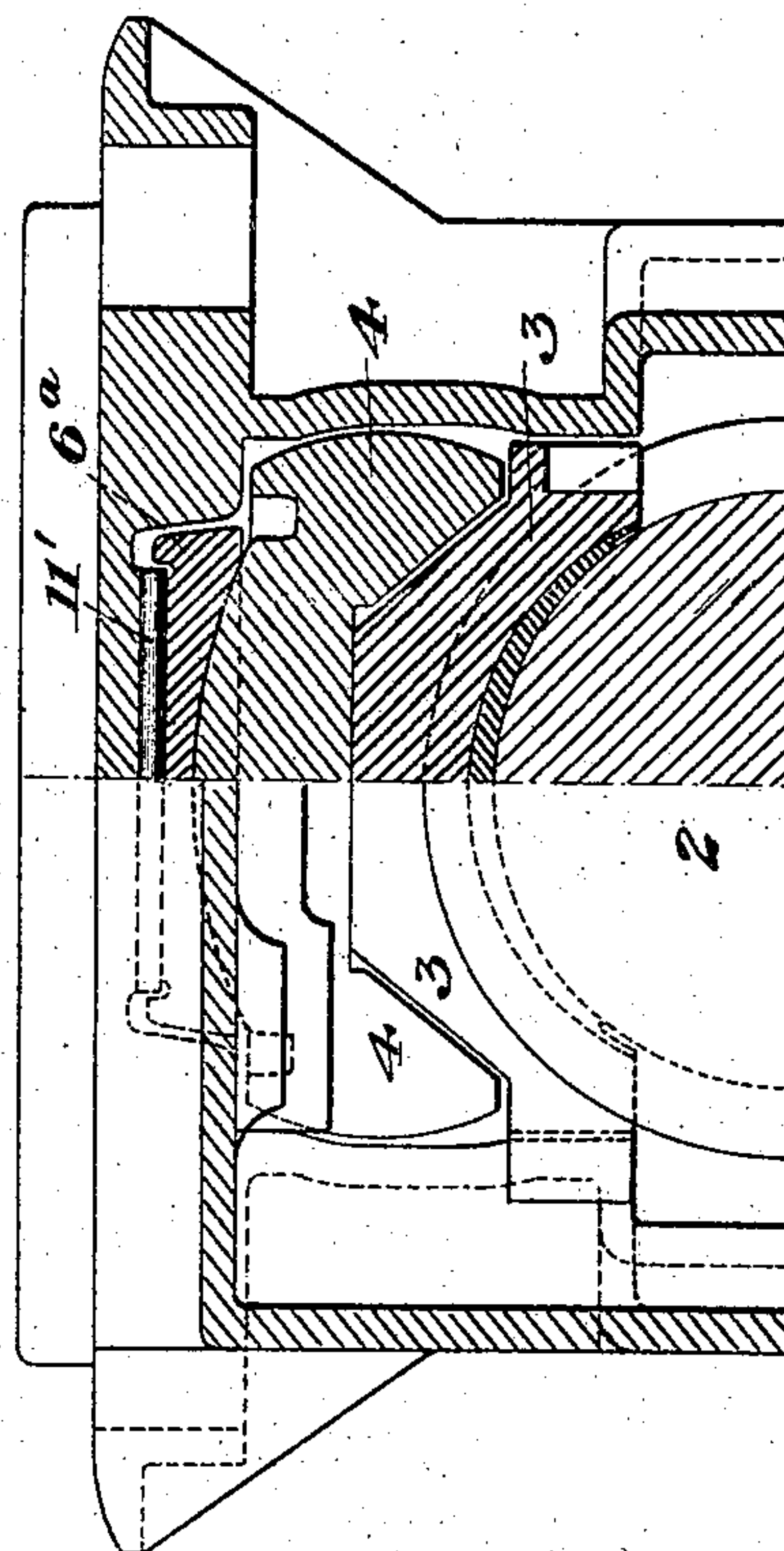


Fig. 7.

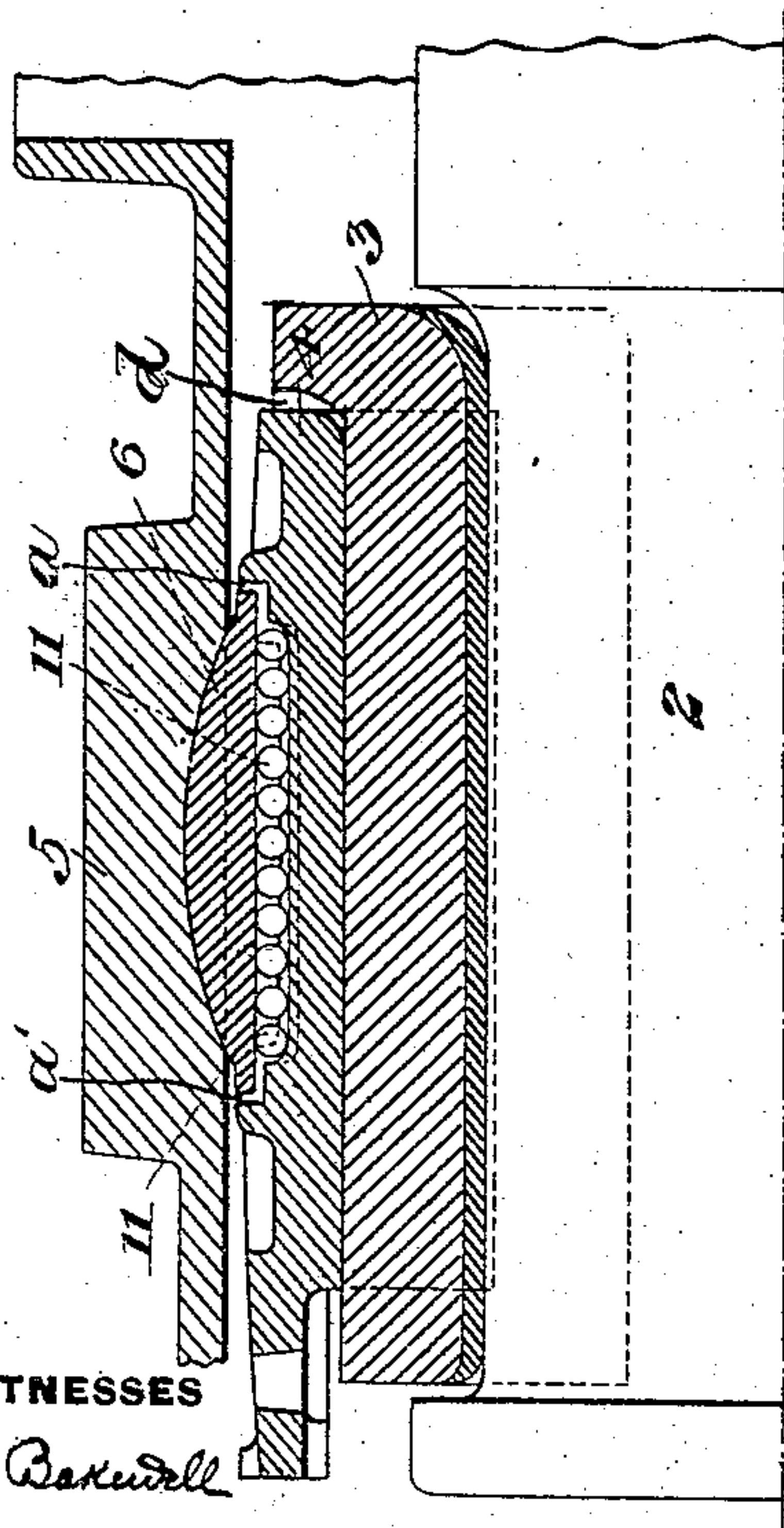
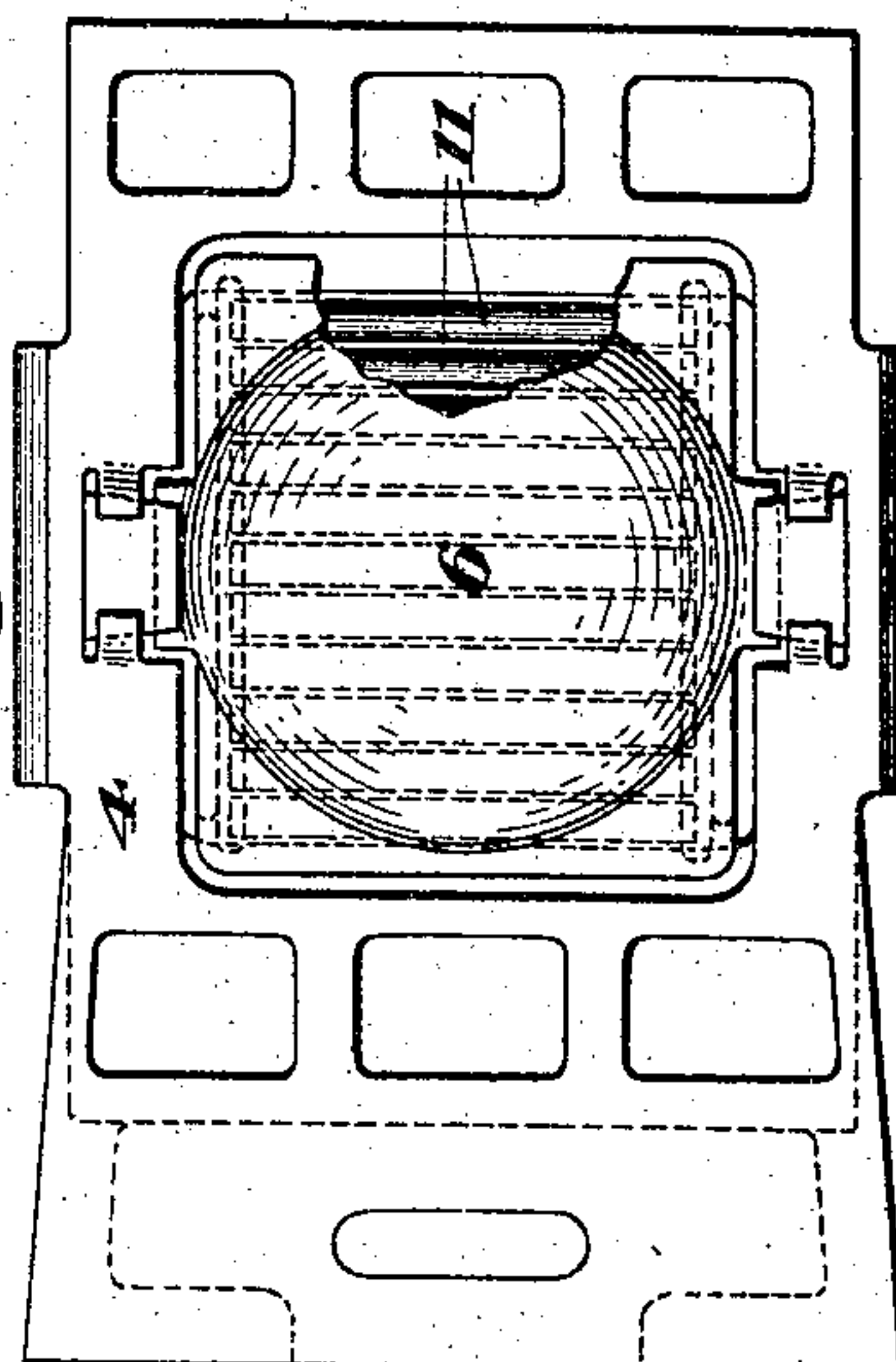


Fig. 8.



WITNESSES

Thomas W. Baxendale
J. F. Manning

INVENTOR

John W. Stephenson

UNITED STATES PATENT OFFICE.

JOHN W. STEPHENSON, OF TOLEDO, OHIO, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 767,182, dated August 9, 1904.

Application filed April 30, 1903. Serial No. 154,953. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. STEPHENSON, of Toledo, Lucas county, State of Ohio, have invented a new and useful Journal-Box, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal central section of a journal-box constructed in accordance with my invention. Fig. 2 is a sectional elevation, the part at the right being in vertical section on the line IIII of Fig. 1 and the part at the left being in end elevation, only the box proper being shown in section. Fig. 3 is a longitudinal section of a modified construction. Fig. 4 is a like view of another modification. Figs. 5 and 6 are a bottom plan view and an elevation, respectively, of the piece which constitutes the rocking bearing in Figs. 1, 2, and 3. Fig. 7 is a longitudinal section showing a modified construction, in which the sliding action of said piece is facilitated by antifriction-rollers. Fig. 8 is a top plan view, partly broken away, showing the sliding rocking bearing-piece of Fig. 7. Fig. 9 is a longitudinal section, and Fig. 10 a vertical cross-section, partly in end elevation, showing a modified construction, in which the rocking bearing is integral with the wedge and in which the roller-bearings are differently placed from the arrangement shown in Fig. 7.

My invention is an improvement upon the journal-box described in Letters Patent No. 692,086, granted to me on January 28, 1902, in which I claim the combination of a journal-box and a wedge, one of which parts has a projection bearing upon the other and constituting a universal rocking bearing and a journal-brass. The purpose of my present invention is to improve the construction of that patent and to facilitate the adjusting action of the wedge and box relatively to each other.

In the drawings, 2 represents the journal. 3 is the brass.

4 is the wedge, and 5 is the journal-box.

The relative arrangement of the wedge and brass is the same as in my patent referred to herein, with the exception that I provide a space d between the inner ends for the purpose of obtaining a greater range of adjustment of the parts.

I provide a rocking bearing between the wedge and the box, so as to give entire freedom of adjustment to the wedge and to maintain the bearing of the load upon the center of the car-axle to prevent binding of the brass upon the journal and also provide for a longitudinal adjustment of the wedge, so that when the truck to which the device is applied is uneven or its width, as is often the case, is not exactly of standard dimension the wedge will automatically adjust itself to conform thereto and the brass will not be moved so as to cause it to rub against the collars at the ends of the journal. In this way I prevent what has been a troublesome source of wear and destruction to the journal and the brass and improve greatly the construction and operation of the parts. I effect this result in Fig. 1 by interposing between the wedge and the top of the box a separate piece 6, which has a sliding bearing on a flat seat 7 on top of the wedge and has a universal rocking bearing on the under side of the top of the box, which is preferably constituted by rounding convexly the top of the piece 6 and rounding concavely the under surface of the box against which it fits, or the convexity may be on the box and the concavity on the piece 6. The seat 7 on the wedge is of greater dimension than the under surface of the piece 6, so that the latter may slide and adjust itself thereon, and a clearance-space b is provided between the end of the wedge and the box. If now the truck to which the device is applied happens to be wider than the standard dimension, the wedge will move to the left relatively to the box, Fig. 1, such movement being permitted by the clearance-space a on the sliding seat 7 and by the clearance-space b above mentioned. If, on the other hand, the truck is too narrow, the movement will be to the right in Fig. 1, such movement being

permitted by the clearance-space a' on the seat, and in neither case will the brass grind against the collar on the journal, since the clearance-spaces which I provide are large
 5 enough to accommodate all ordinary inaccuracies of size. No matter what may be the extent of this self-adjustment of the parts the part 6 provides a universal rocking bearing
 10 thus securing all the advantages mentioned in my Patent No. 692,086.

For the purpose of lubricating the bearing of the piece 6 on the seat 7 I provide it with a cavity 8, which constitutes a chamber for
 15 grease, and I groove the under side of the piece 6, as at c , to form pockets in which the grease is held and prevented from displacement.

In Fig. 3 I show a modification of my invention, in which there is a separate piece 9 set in a pocket on the under side of the top of the box and constituting a bearing for the
 20 piece 6. It is held by a support 10 from dropping when the parts are being assembled or
 25 disassembled.

In Fig. 4 I show a modification, in which the piece 6' has a sliding bearing in a pocket on the under side of the top of the box and has a universal rocking bearing against the surface
 30 of the wedge. It is also, preferably, provided with a supporting-piece 10.

The construction shown in Figs. 3 and 4 enables me, when desired, to dispense with the piece 6 and to interpose a flat bearing-piece
 35 between the box and the wedge, and thus enables an ordinary Master Car-Builders' wedge to be used, as where the car happens to be repaired at a shop not provided with my improved wedges.

40 In Figs. 7 and 8 I show a modified construction, which is the same as that shown in Fig. 1, except that roller-bearings 11 are interposed between the wedge and the piece 6 to facilitate the sliding adjustment of the latter.

45 Figs. 9 and 10 show a modification, which is the same as that shown in Fig. 7, except that the part 6^a has a universal rocking bearing against the wedge and a sliding bearing against the top of the box, antifriction-rollers 11' being
 50 interposed to facilitate the sliding motion.

Those skilled in the art will be able to modify the invention in other ways within the scope of my claims, since

What I claim is—

1. In a journal-box, a wedge and a brass, 55 said wedge having clearance-spaces at the ends, permitting a sliding movement relatively to the box, and a separate piece constituting a universal rocking bearing on the box, said piece being interposed between the
 60 wedge and the box, and having a rounded bearing-face; substantially as described.

2. In a journal-box, a wedge and a separate piece constituting a universal rocking bearing between the top of the wedge and the
 65 box, said piece being rounded on one side, and having a sliding face on the other, with a marginal clearance-space and having pockets on its sliding face; substantially as described.

3. In a journal-box, a wedge and a separate 70 piece constituting a rocking bearing, said piece having a sliding bearing on one side, with a marginal clearance-space and a rocking bearing on the other side; substantially as described. 75

4. In a journal-box, a wedge, and a brass, the wedge having a sliding motion endwise of the box, and antifriction-rollers to facilitate such sliding motion; substantially as described.

5. In a journal-box, a wedge and a separate 80 piece constituting a universal rocking bearing between the top of the wedge and the box, said piece being rounded on one side and having a sliding face on the other and having a clearance-space at its margin; substantially as
 85 described.

6. In a journal-box, a wedge and a separate piece constituting a universal rocking bearing between the top of the wedge and the box, said piece being rounded on one side and hav- 90 ing a sliding face on the other and having a clearance-space at its margin, said wedge also having clearance-spaces at its ends; substantially as described.

In testimony whereof I have hereunto set 95 my hand.

JOHN W. STEPHENSON.

Witnesses:

JOHN MILLER,
 H. M. CORWIN.