

No. 855,361.

PATENTED MAY 28, 1907.

T. H. SYMINGTON.  
RAILROAD JOURNAL BOX.  
APPLICATION FILED JUNE 29, 1905.

Fig. 1.

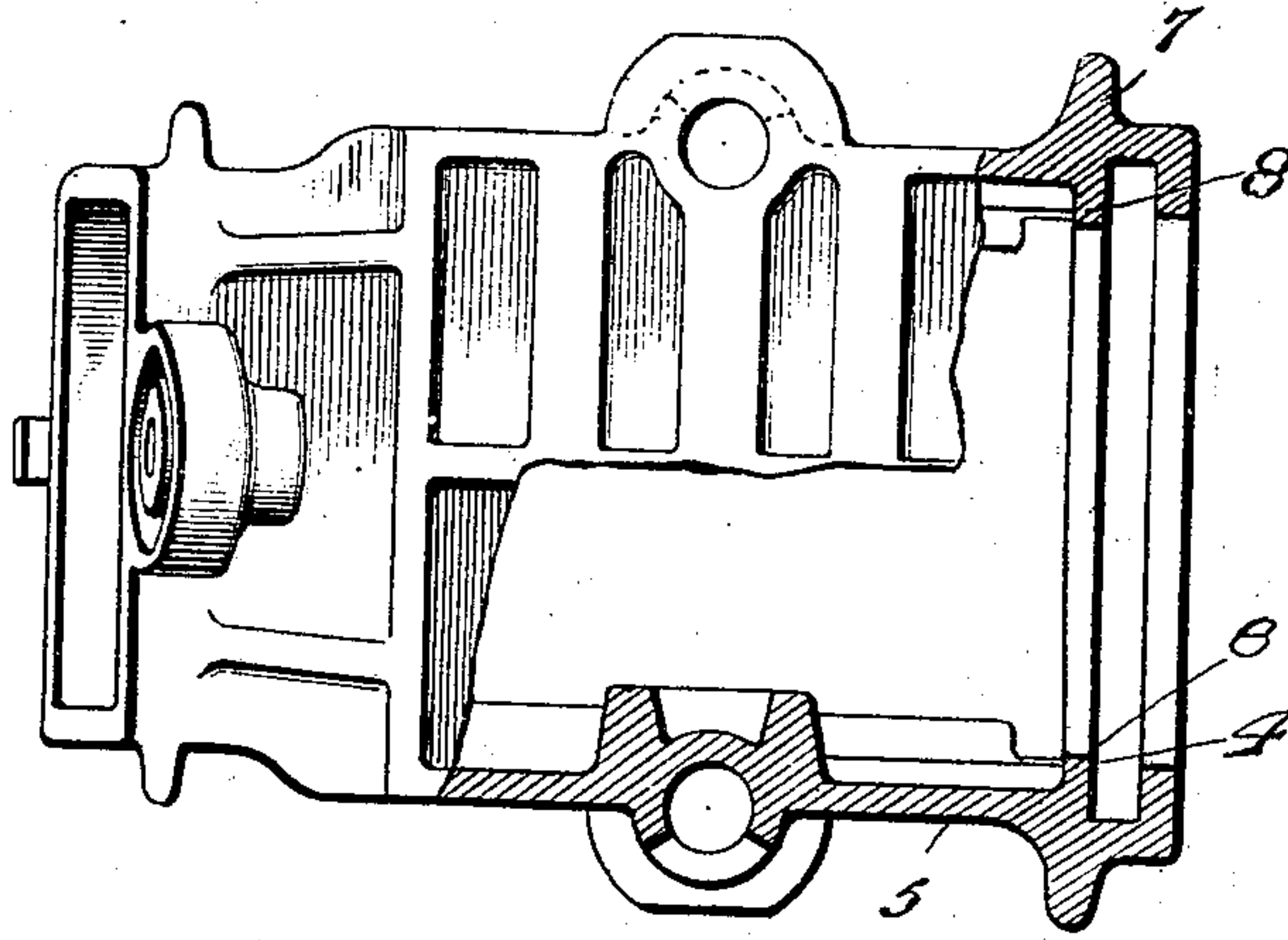


Fig. 2.

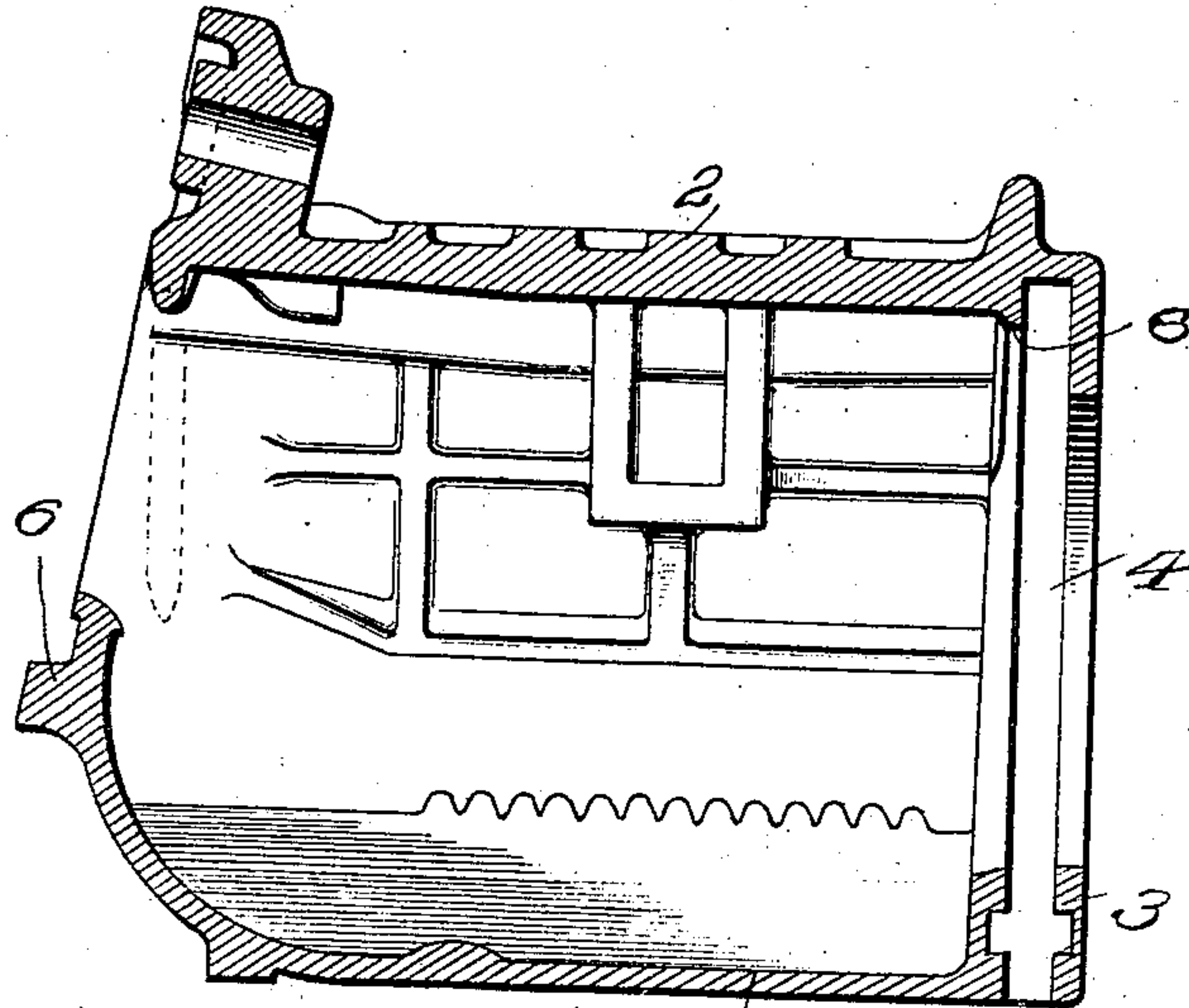
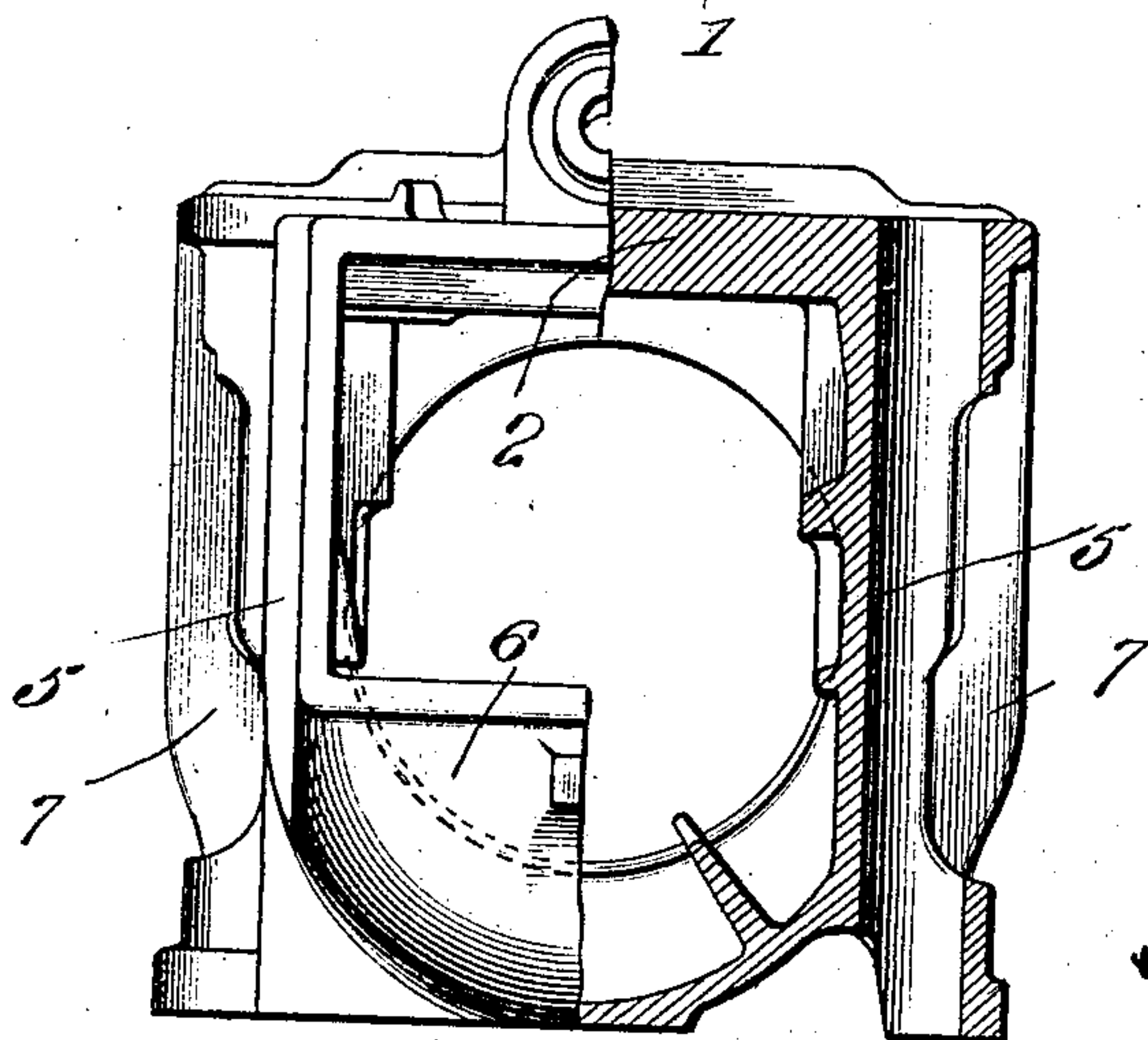


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## RAILROAD JOURNAL-BOX.

No. 855,361.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed June 29, 1905. Serial No. 267,555.

*To all whom it may concern:*

Be it known that I, THOMAS H. SYMINGTON, a citizen of the United States of America, and a resident of the city of Baltimore and State of Maryland, have invented certain new and useful Improvements in Railroad Journal-Boxes, of which the following is a specification.

My invention relates to certain new and useful improvements in journal boxes, and the object of my invention is to produce a journal box which is stronger, more durable, and better adapted to the service it is called upon to perform than the boxes as heretofore constructed.

The object of my invention is to strengthen the structure of my journal box at a point where it receives constant strain and to concentrate the side pressure of the axle at a particular point. For this purpose I provide the journal box at its rear end with a vertical flange located upon its exterior surface opposite to the interior side wall of the dust guard well, and I make the horizontal diameter of the axle aperture in the interior wall of the dust guard well shorter than the horizontal diameter of the axle aperture in the exterior wall of the dust guard well. I thus concentrate the side pressure of the axle upon the journal box upon the edge of the interior wall of the dust guard well opposite to the external strengthening rib which surrounds the box on the top and two sides in the same vertical plane as the interior wall of the dust guard well.

Referring to the drawings, wherein the same part is designated by the same reference numeral wherever it occurs, Figure 1 is a top plan view, partly in horizontal section, of a journal box embodying the preferred form of my invention. Fig. 2 is a central vertical longitudinal section. Fig. 3 is a front view, partly in vertical transverse section.

Referring to the drawings: The journal box is composed of a bottom 1, top 2, rear end 3 in which is formed a dust guard well 4, sides 5--5, and front 6 in which is formed an opening through which packing may be inserted into the box.

7 is a laterally projecting rib which encircles the rear of the box on three sides,—the

two vertical sides and the top,—and has for its object to so strengthen the material at the rear end of the journal box, which is the place where the greatest amount of strain is cast upon the box, so as to resist the strain and prevent the starting of a crack, which, when once started, would travel through the box.

8 is an inwardly projecting rib which forms one wall of the dust guard well and which is located upon the interior surface of the side wall and top of the box opposite the exterior rib 7. A blow of the axle against the box at the rear is taken on the inner rib of the dust guard well and the vertical rib is placed there to take this strain and is fortified by the external rib 7, which is immediately opposite to it upon the outside.

The side thrust of the axle is partially borne by the bearing block at the top of the journal box and its connections. But the axle is free within the journal box and in cases where severe jolting occurs, the bearing block will sometimes leave the axle, or the axle may be jolted below it so as to bring the axle in contact with the side of the box at the rear. This kind of a blow is very apt to break the journal box unless it is especially strengthened to resist it.

In my box I have provided an especially strong section of metal consisting of an external rib 7, extending around three sides of the box, the top and two sides, and a corresponding internal rib which forms the interior wall of the dust guard well. This interior wall is projected inward so as to receive the blow and distribute it through the portion of the box where a large quantity of metal is provided to receive it. The horizontal diameter of the aperture in the internal wall of the dust guard well being shorter than the horizontal diameter of the aperture in the external wall of the dust guard well, which is the rear wall of the box, will result in receiving the blow of the axle upon the edge of this interior wall and distributing it through the side of the box at a point opposite to the external rib 7.

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

A journal box of standard type, having an

inner and an outer wall to the dust guard well apertured to receive an axle, the axle aperture in the inner wall being of a horizontal diameter less than the horizontal diameter of the aperture in the external wall so that  
5 the inner wall will receive the impact of the axle when it is displaced laterally from its normal position in the box, and a strengthening rib on the exterior of the box in the same

vertical plane as the interior wall of the dust guard well, substantially as described.

Signed by me at Baltimore, Maryland.

THOMAS H. SYMINGTON.

Witnesses:

T. BAYARD WILLIAMS,  
E. JOHN NICHOLS.