

No. 705,871.

Patented July 29, 1902.

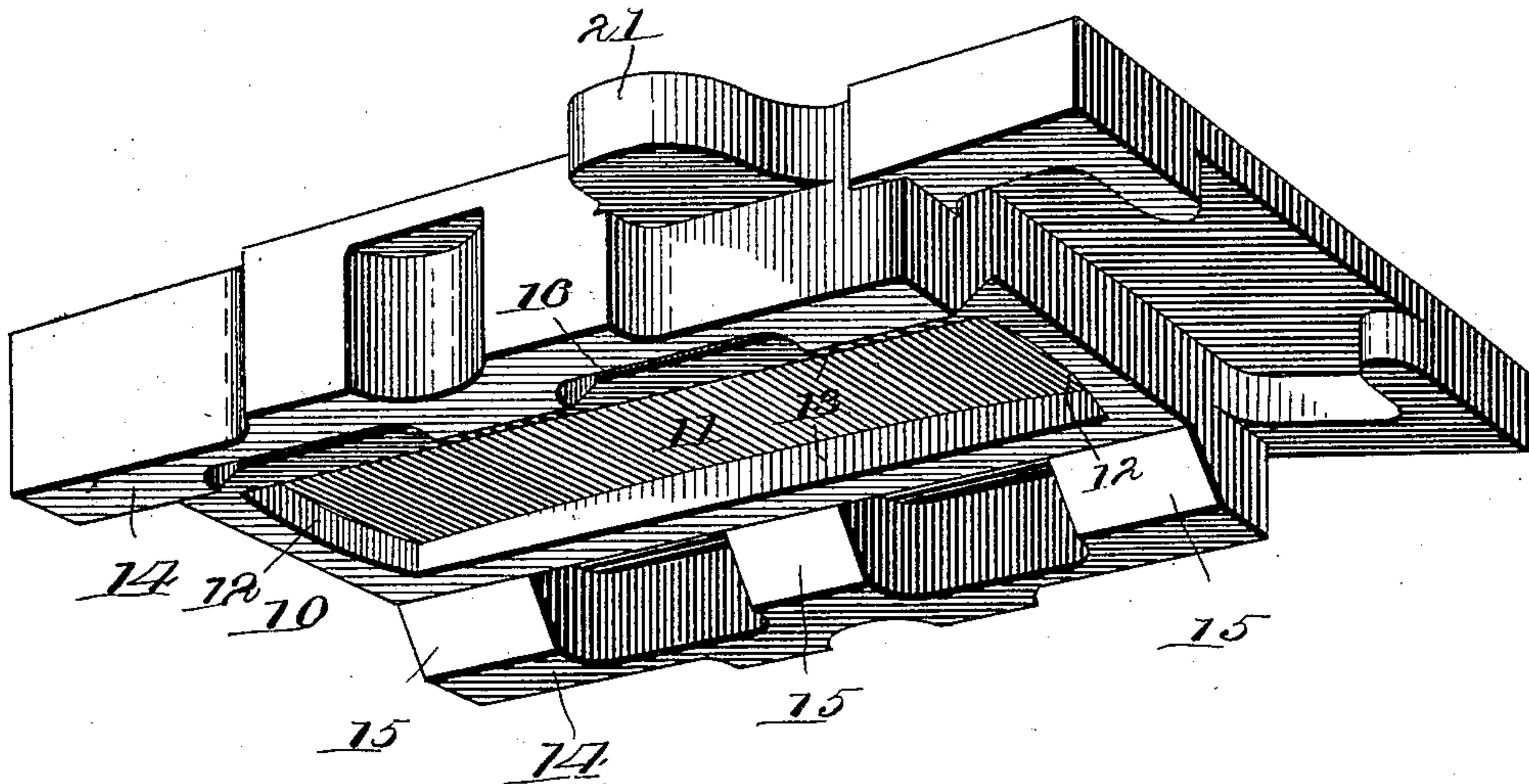
G. N. SCEETS.  
JOURNAL BEARING.

(Application filed Mar. 31, 1902.)

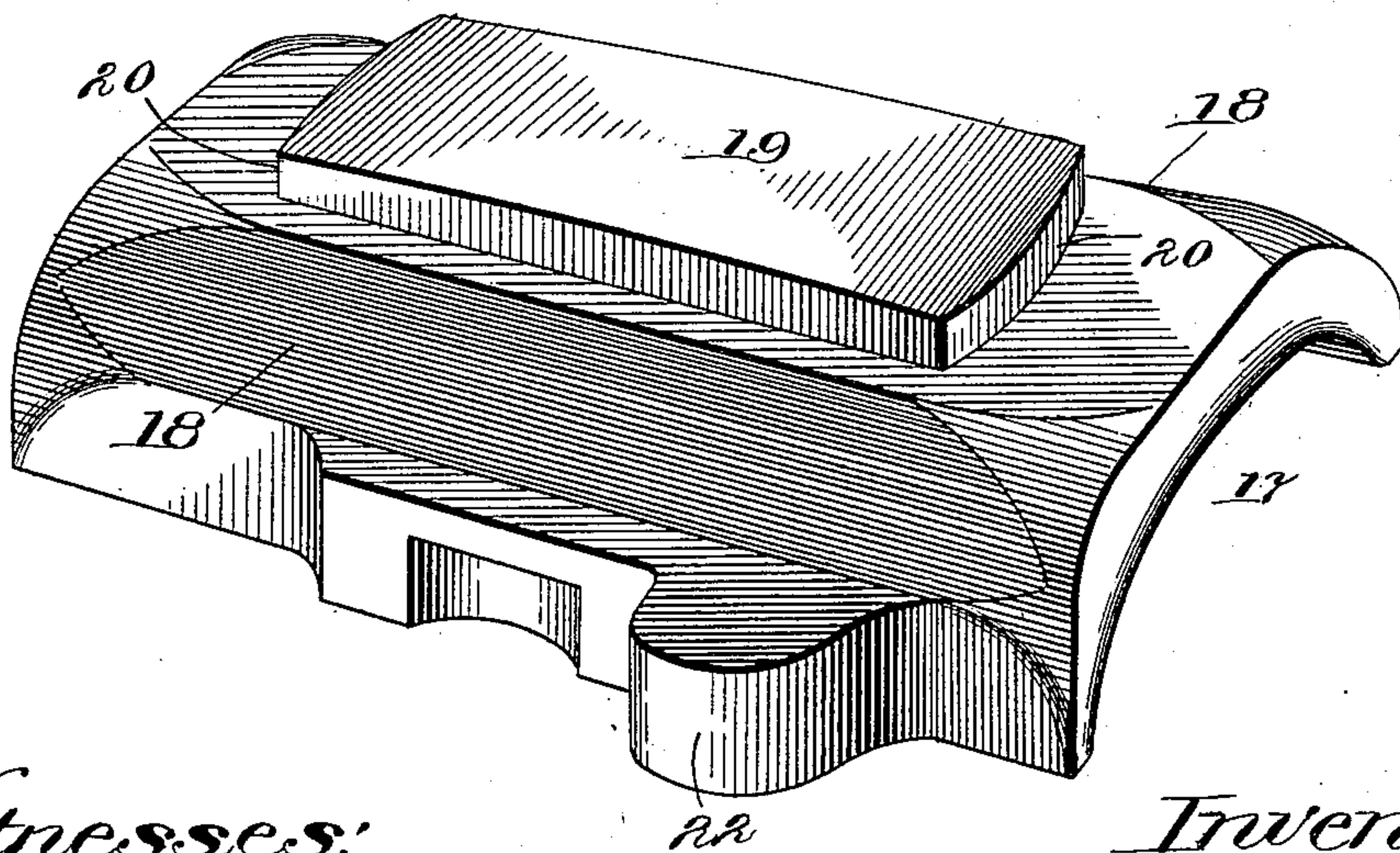
(No Model.)

2 Sheets—Sheet 1.

*Fig. 1.*



*Fig. 2.*



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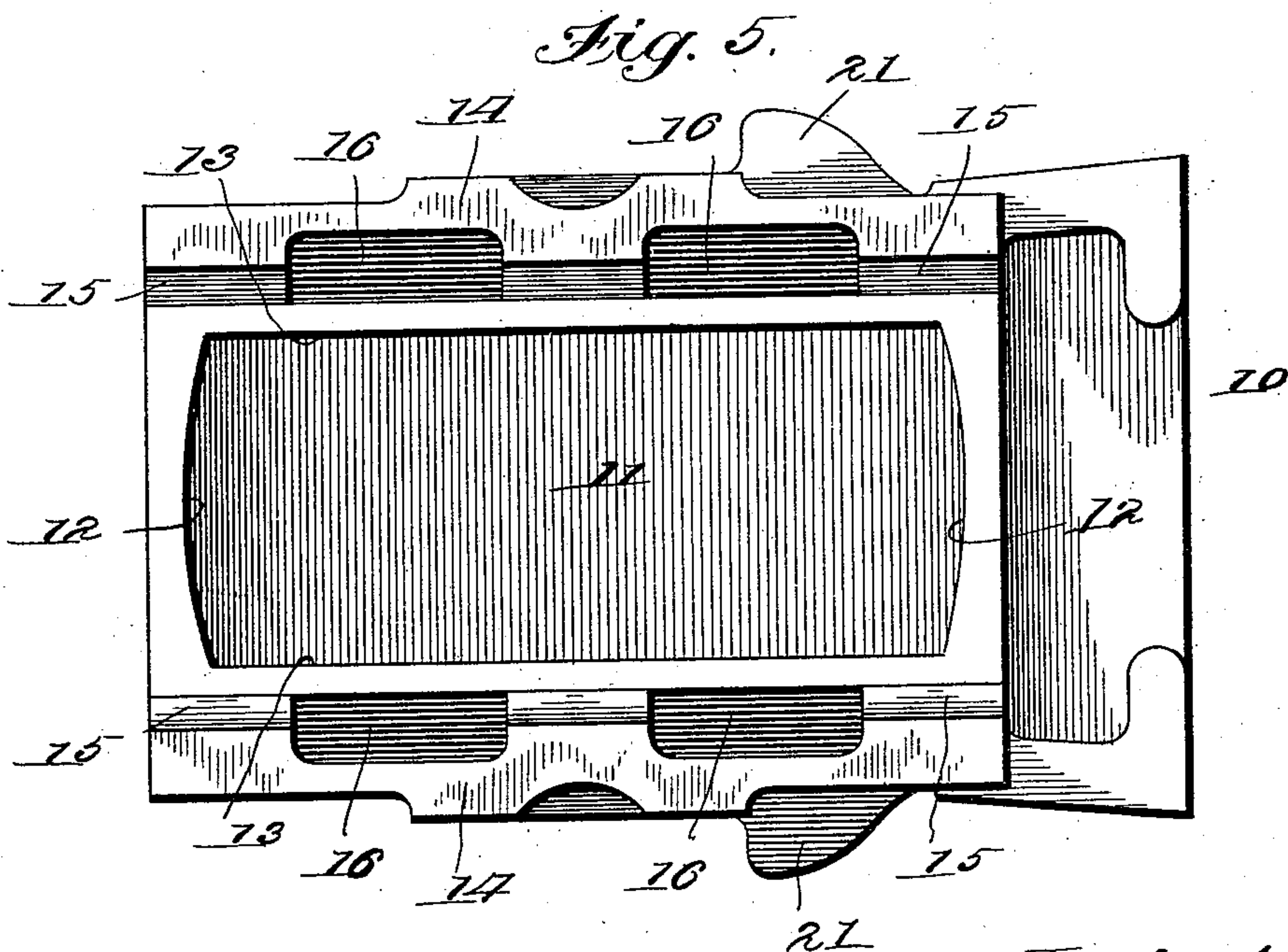
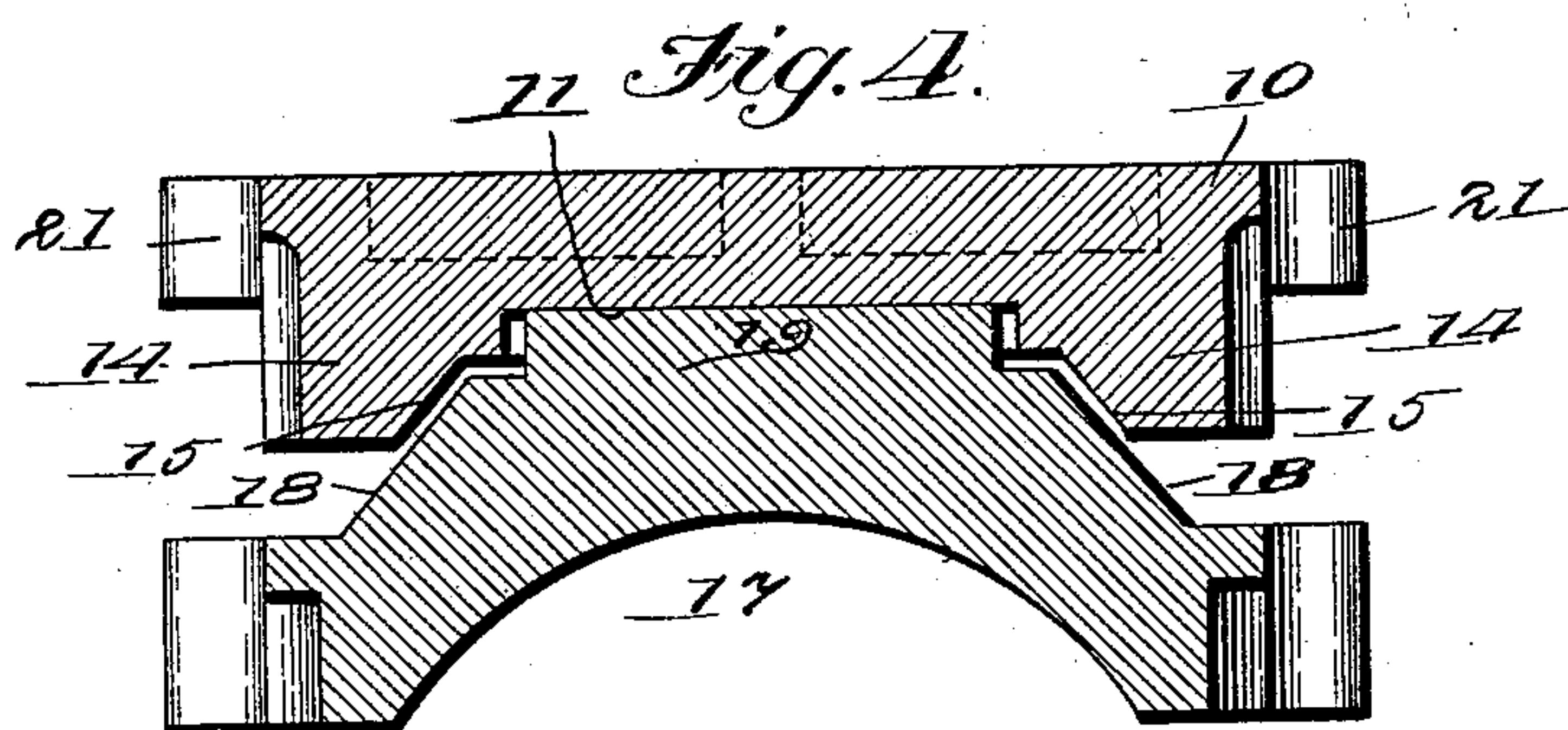
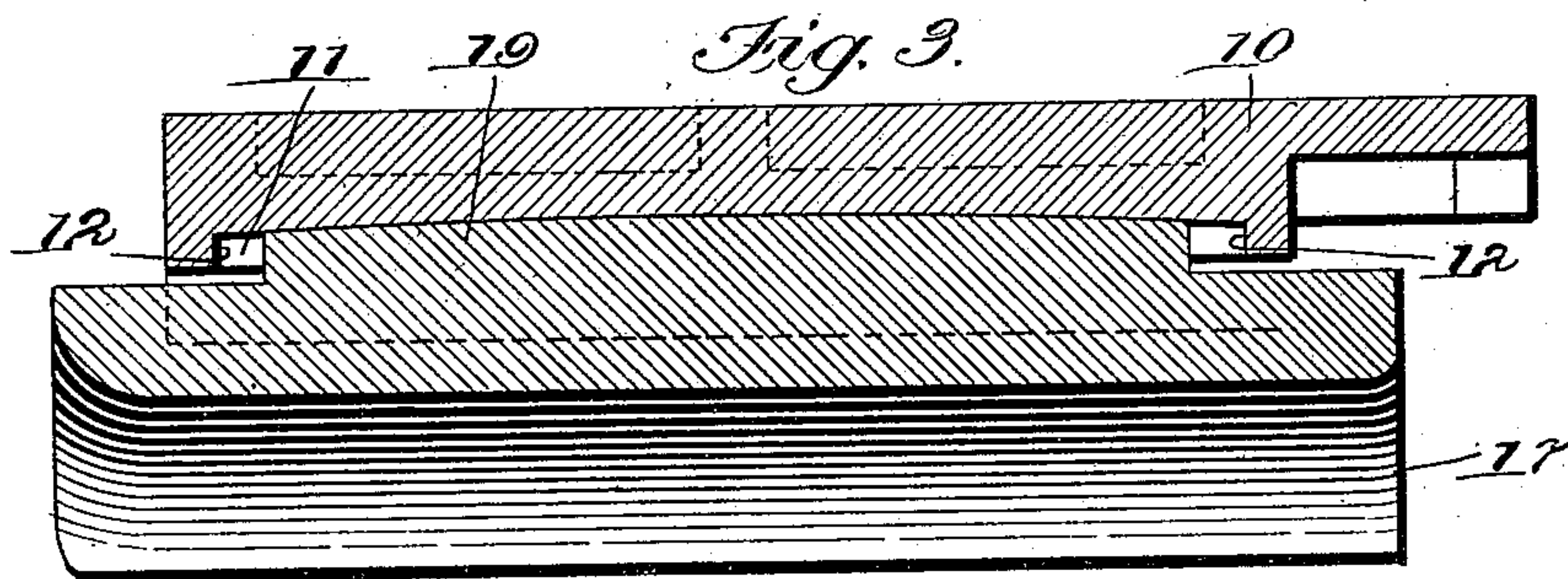
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2 Sheets—Sheet 2.



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# UNITED STATES PATENT OFFICE.

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## JOURNAL-BEARING.

SPECIFICATION forming part of Letters Patent No. 705,871, dated July 29, 1902.

Application filed March 31, 1902. Serial No. 100,779. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE N. SCEETS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Journal-Bearings, of which the following is a specification.

This invention relates to novel improvements in car journal-bearings, and has for its primary object to produce a brass and wedge or key which can be used interchangeably with the standard brasses and wedges now in general use.

The invention also has in view to improve the construction of car journal-bearings and provide for an adjustment of the brass to compensate for irregularities in the road-bed and imperfections in the construction of trucks and road-bed and to prevent the journal from binding and heating.

The invention has other objects in view, which will appear fully in the detailed description thereof hereinafter, in connection with the following drawings, in which—

Figures 1 and 2 are perspective views of the wedge or key and brass, respectively. Figs. 3 and 4 are longitudinal and transverse sectional views, respectively, of the bearing. Fig. 5 is a bottom plan view of the wedge or key.

The wedge 10 is provided on its under face with a recessed central portion 11, the end walls 12 of which are preferably curved and the side walls 13 straight. The wedge is provided with depending sides 14, which have inclined inner faces 15 and may be cut out, as indicated at 16, to reduce the weight without impairing its strength. The brass 17 is provided with inclined sides 18, complementary to the inclined inner faces 15 of the depending sides of the wedge, and a raised crown 19, which fits loosely within the recess 11 of the wedge. The ends 20 of the crown are preferably curved to correspond with the end walls of the recess, and the height of the crown is preferably greater than the depth of the recess in the wedge, so that in actual practice the wedge will rest wholly upon the crown, Fig. 4. The crown on the brass is somewhat shorter and narrower than the recess in the wedge to allow a limited play for

the brass relatively to the wedge, so that the brass can instantly adjust itself by endwise or sidewise or a slight rotating movement to the varying positions assumed by the journal in rounding curves and at other times by reason of irregularities and imperfections in the road-bed and trucks, thereby avoiding the severity of the shocks incidental heretofore to these sudden adjustments. The end walls of the recess limit the endwise thrust of the brass relative to the wedge, and the side walls of the recess confine the brass to comparatively slight sidewise and rotating movements, which, however, are sufficient to provide for all ordinary adjustments. The wedge is preferably provided with lateral lugs 21 to engage ribs or lugs on the side of a journal-box to hold the wedge in fixed position in the usual manner, and the brass may be similarly provided with lateral lugs 22 to engage the ribs or lugs on the inside of the box and relieve the inner end wall of the recess in the wedge of the full force of the endwise thrust inwardly of the brass. I prefer to make the top face of the wedge flat instead of curved, as has been done heretofore, and I also prefer to make the top face of the crown on the brass slightly curved from end to end and form the bottom of the recess in the wedge with a corresponding curvature, so that they will make contact throughout and constitute a firm and substantial bearing.

This invention is especially important, by reason of the fact that the wedge and the brass may each be used interchangeably with the standard type of wedge and brass adopted by the Master Car-Builders' Association and now extensively and generally used. It will be observed that in cross-section the brass conforms closely to the shape of a Master Car-Builders' brass, and it is constructed to fit snugly and operate properly in a Master-Car Builders' wedge. The wedge is constructed so that a Master Car-Builders' brass will fit and operate properly therein. This interchangeable construction of the wedge and brass with the Master Car-Builders' standard wedge and brass will enable new brasses to be put in at any time and regardless of whether they are constructed in accordance with my present invention or the Master Car-Build-



ers' standard, thereby avoiding the necessity which frequently occurs at present of removing the wedge, as well as the worn-out brass, and putting in another wedge which will accommodate and properly secure the new brass of different construction. My present invention, therefore, marks a decided advance over the bearings of the prior art and provides a more effective adjustment of the parts than the Master Car-Builders' standard. The brass can be made lighter in weight than the standard brass now in general use without sacrificing in any way its strength or longevity.

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

1. A car journal-bearing comprising a wedge having a substantially rectangular recess in its under face, and a brass provided on its top face with a raised crown to work in said recess in the wedge.

2. A car journal-bearing comprising a wedge having a recess in its under face, and a brass provided on its top face with a raised crown to work in the recess in the wedge, said crown being shorter in length than the recess to enable the brass to move endwise relative to the wedge.

3. A car journal-bearing comprising a wedge having a substantially rectangular recess in its under face, and a brass provided on its top face with a raised crown to work in the recess in the wedge, said crown being narrower than the recess to enable the brass to have a slight

sidewise and rotary movement relative to the wedge.

4. A car journal-bearing comprising a wedge having a recess in its under face, and a brass provided on its top face with a raised crown to work in the recess in the wedge, said crown being shorter and narrower than the recess to enable the brass to move endwise and sidewise and rotatably relative to the wedge.

5. A car journal-bearing comprising a wedge having in its under face a substantially rectangular recess with curved end walls, and a brass provided on its top face with a raised crown to work in the recess in the wedge and having curved ends.

6. A car journal-bearing comprising a wedge having a substantially rectangular recess in its under face and depending sides provided with inclined inner faces, and a brass provided with inclined sides and having a raised crown to work in the recess in the wedge.

7. A car journal-bearing comprising a brass having a raised crown on its top face, and a wedge provided on its under face with a substantially rectangular recess of less depth than the height of the crown to receive the crown on the brass and having side and end walls to confine the brass but permitting a limited movement thereof.

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