

No. 771,661.

PATENTED OCT. 4, 1904.

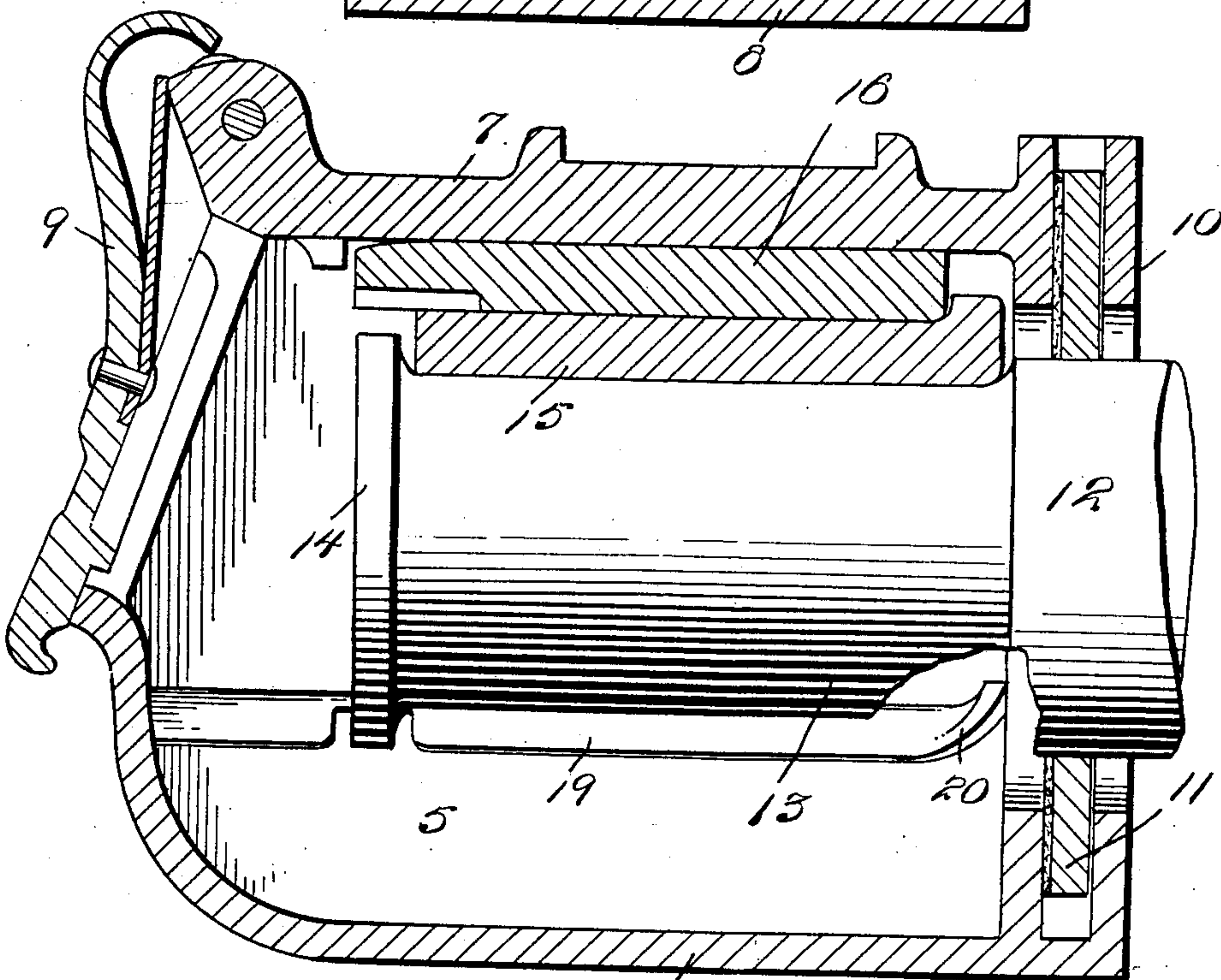
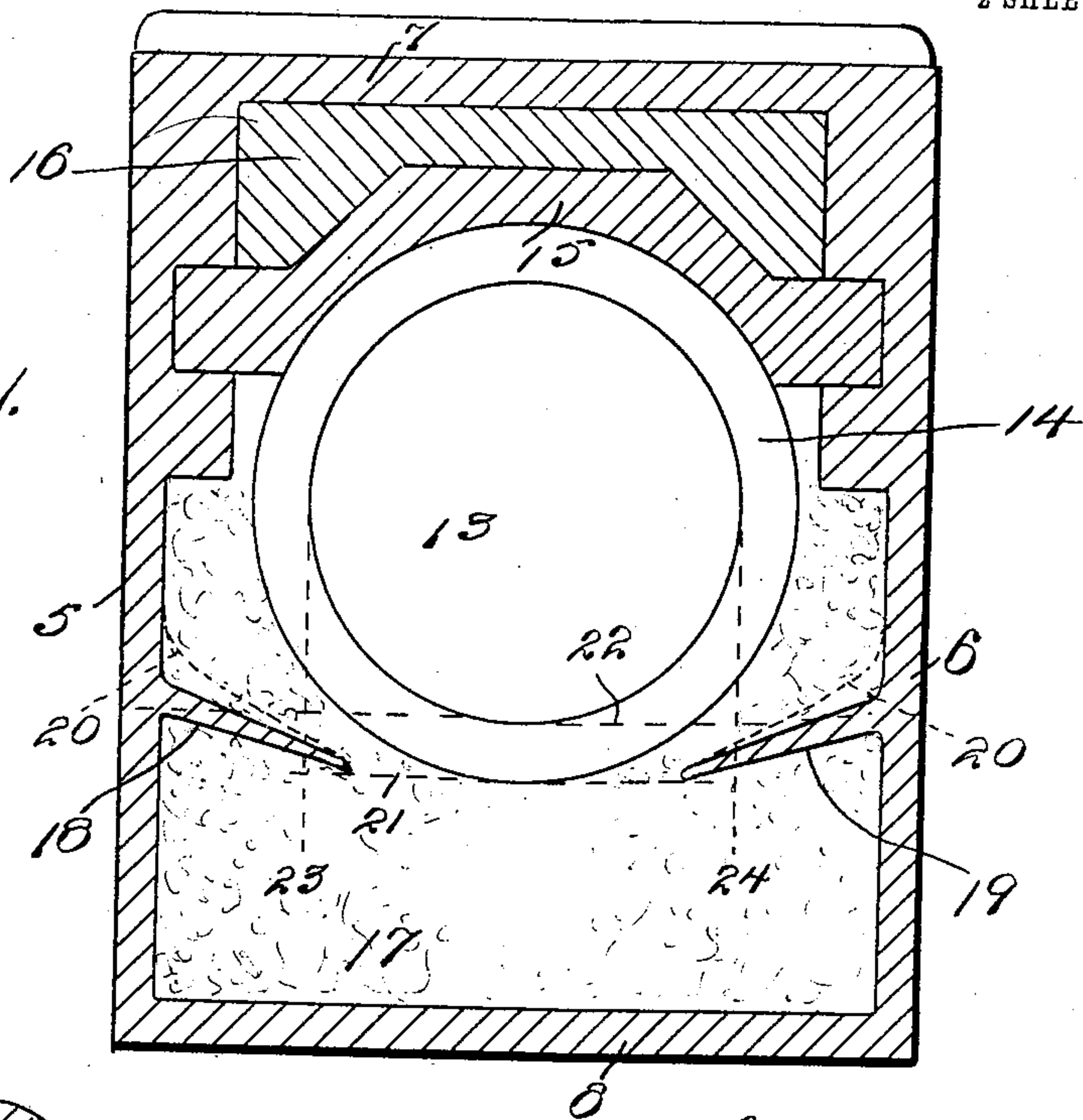
J. S. PATTEN.
JOURNAL BOX.

APPLICATION FILED NOV. 2, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
Amos Jones
F. C. Jones

Fig. 2

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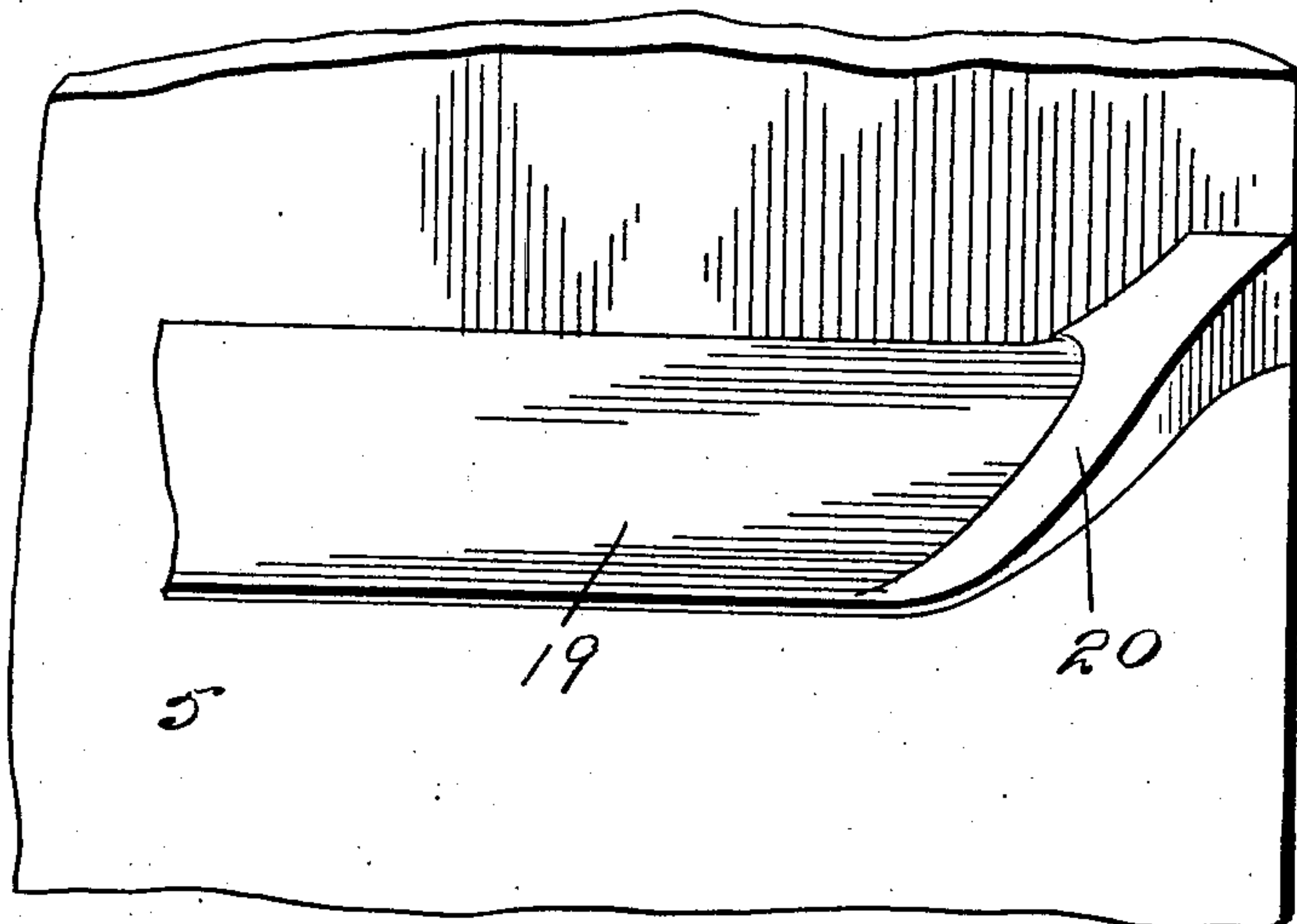
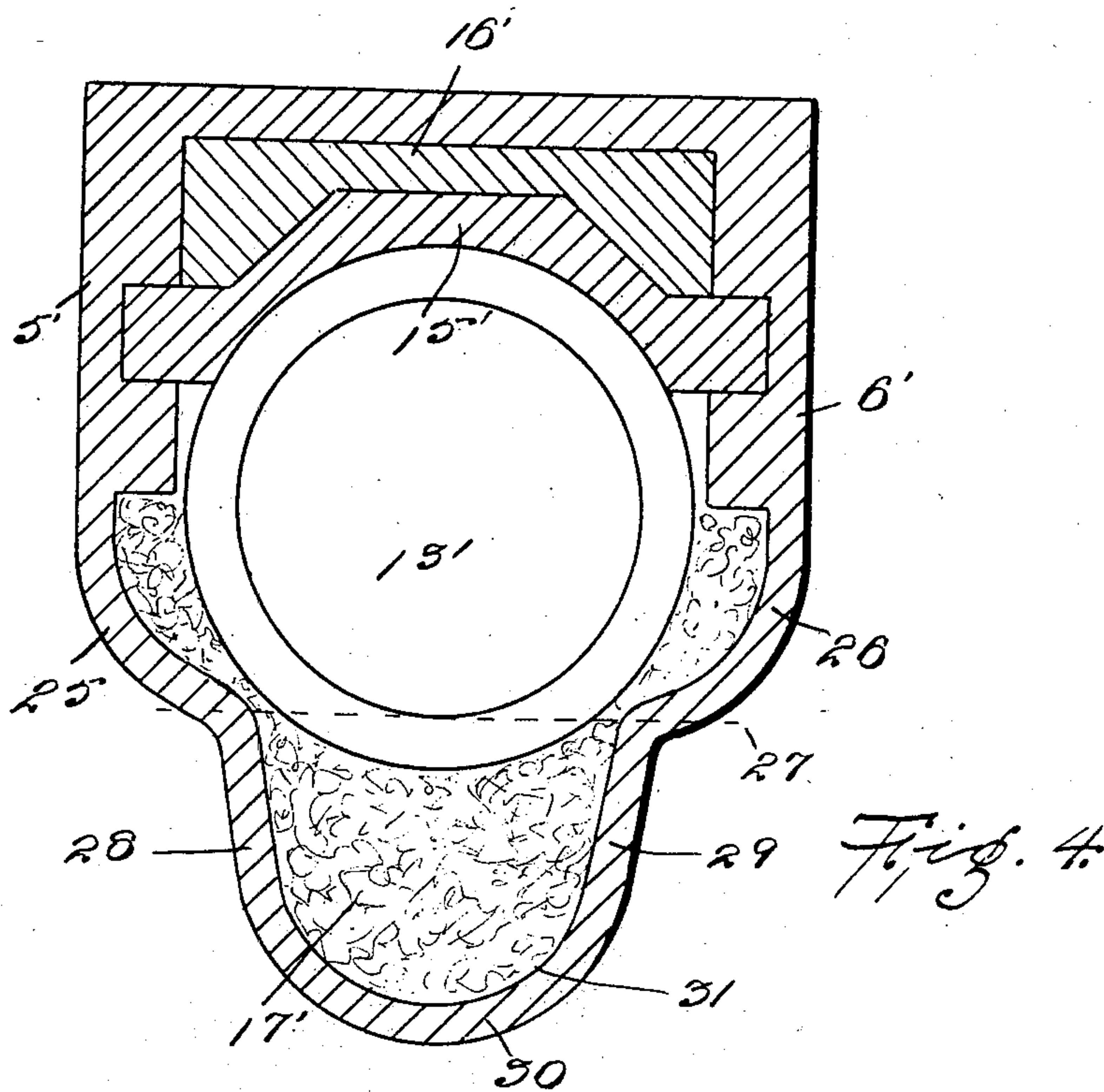
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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES S. PATTEN, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF
TO JOHN W. WOODLAND, OF BALTIMORE, MARYLAND.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 771,661, dated October 4, 1904.

Application filed November 2, 1903. Serial No. 179,592. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. PATTEN, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Journal-Boxes for Car-Axles; and I do hereby 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.

This invention relates to journal-boxes for railway-cars, although it will be understood that the principles may be embodied in a journal-box for use in any other specific capacity where applicable, the object of the invention being to provide a construction which will insure contact of the waste with the journal at all times, so that efficient lubrication will result.

As the journal-boxes are ordinarily constructed the waste is packed into the bottom of the box, and while it lies initially in close contact with the journal it gradually settles away from the journal, with the result that lubrication decreases in efficiency and finally ceases.

The object of the present invention is to provide a construction wherein the waste will be so supported that the same vibrations that serve to settle the waste in the ordinary construction, above referred to, serve to feed the waste against the journal, so that efficient lubrication is continued.

Other objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a vertical section taken transversely through a journal-box embodying the present invention, the journal and the waste in contact therewith being shown in elevation. Fig. 2 is a vertical section taken longitudinally through the journal-box, a portion of the journal being shown in elevation. Fig. 3 is a detail perspective view showing a portion of the side of the journal-box with the waste-supporting shelf. Fig. 4 is a view similar to Fig. 1, showing a different specific style of box.

of box.

Referring now to the drawings, and more particularly to Figs. 1, 2, and 3 thereof, there is shown a journal-box of the general type commonly used on car-trucks, the box comprising side walls 5 and 6, a top 7, a bottom 8, a front lid 9, and a double rear wall 10, which latter receives the ordinary dust-guard 11, which fits around the base 12 of the journal proper, 13. The journal 13 projects into the box and is provided at its free end with the collar 14, between which and the base 12 the journal is reduced in diameter and receives the bearing-brass 15, which is mounted in the upper portion of the box in the usual manner and is provided with the common adjusting-wedge 16. These portions of the structure are the same as found in the ordinary box. To support the waste 17 in contact with the journal, shelves 18 and 19 are formed upon the inner faces of the walls 5 and 6 of the journal-box, said shelves extending from the rear of the box to near the front end or outer end thereof slightly beyond the collar 14, said shelves having at their inner ends the upwardly-directed walls 20, which gradually decrease in height from the attached edges of the shelf to the free edge thereof. The shelves 18 and 19 extend from a higher elevation than the bottom of the journal downwardly and toward each other and terminate at a lower elevation than the bottom of the journal and project part way beneath the journal. The lower longitudinal edges of the shelves are the portions of the shelves nearest to the journal, while the upper edges of the shelves are the portions farthest from the journal. It will be noted that the shelves 18 and 19 converge toward the face of the journal 13 and that the portion of each shelf that is nearest to the face of the journal is the lower edge of the shelf. As journal-boxes are ordinarily constructed the waste is below the journal and is held against bodily movement, and, furthermore, the jolting and jarring of the box serves to settle the waste, and as it settles it moves away from the journal, so that the hot box results.

In Fig. 4 of the drawings the upper portions of the side walls 5' and 6' have the same form as the walls 5 and 6 in Fig. 1, the box being equipped with the bearing-brass 15' and the wedge 16'. From the horizontal plane, including the axis of the journal 13', the side walls of the box are curvingly converged, as shown at 25 and 26, to substantially the height of the lower horizontal tangent of the journal proper, which tangent is indicated by the dotted lines 27, the side walls being then continued downwardly and straight, with slight convergence, as shown at 28 and 29, to the rounded bottom portion 30, forming a narrow chamber 31 below the journal. In this embodiment of the invention the waste 17' is packed in the chamber 13 and also in the upper portion of the box between the portions 25 and 26 of the side walls and the journal. Owing to the convergence of the portions 25 and 26 toward the adjacent portions of the face of the journal, the waste is fed downwardly and inwardly toward the journal and contact of the waste with the journal is maintained.

What is claimed is—

1. The combination with a journal-box and a journal therein, of waste-supporting means at each side of the journal, said supporting means extending from the sides of the box downwardly and toward each other, the lower longitudinal edges of said supporting means being spaced apart and at least below the center of revolution of the axis and being the portions of said means nearest to the journal,

and the uppermost portions of said supporting means being at a higher elevation than the bottom of the journal and lower than the axis of the journal.

2. The combination with a journal-box and a journal therein, of waste-supporting means consisting of a shelf at each side of the journal extending from a greater elevation than the bottom of the journal and below the axis of the journal downwardly and toward each other and terminating at least below the center of revolution of the axis of a journal, the lower longitudinal edges of the shelves being spaced upwardly from the bottom of the journal-box and being the portions of the shelves nearest to the journal.

3. A journal-box adapted to receive a horizontal journal, said box having waste-supporting means arranged at each side of the journal-receiving portion, said supporting means converging downwardly of the box and having such location that their lowermost portions will lie at least below the center of revolution of the axis and closest to the journal when the latter is in position, while their uppermost portions will lie farthest from and above the bottom of the journal and below the axis of the journal when the latter is in position.

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

JAMES S. PATTEN.

Witnesses:

WARREN W. BROWN,
H. STOCKTON STARTT.