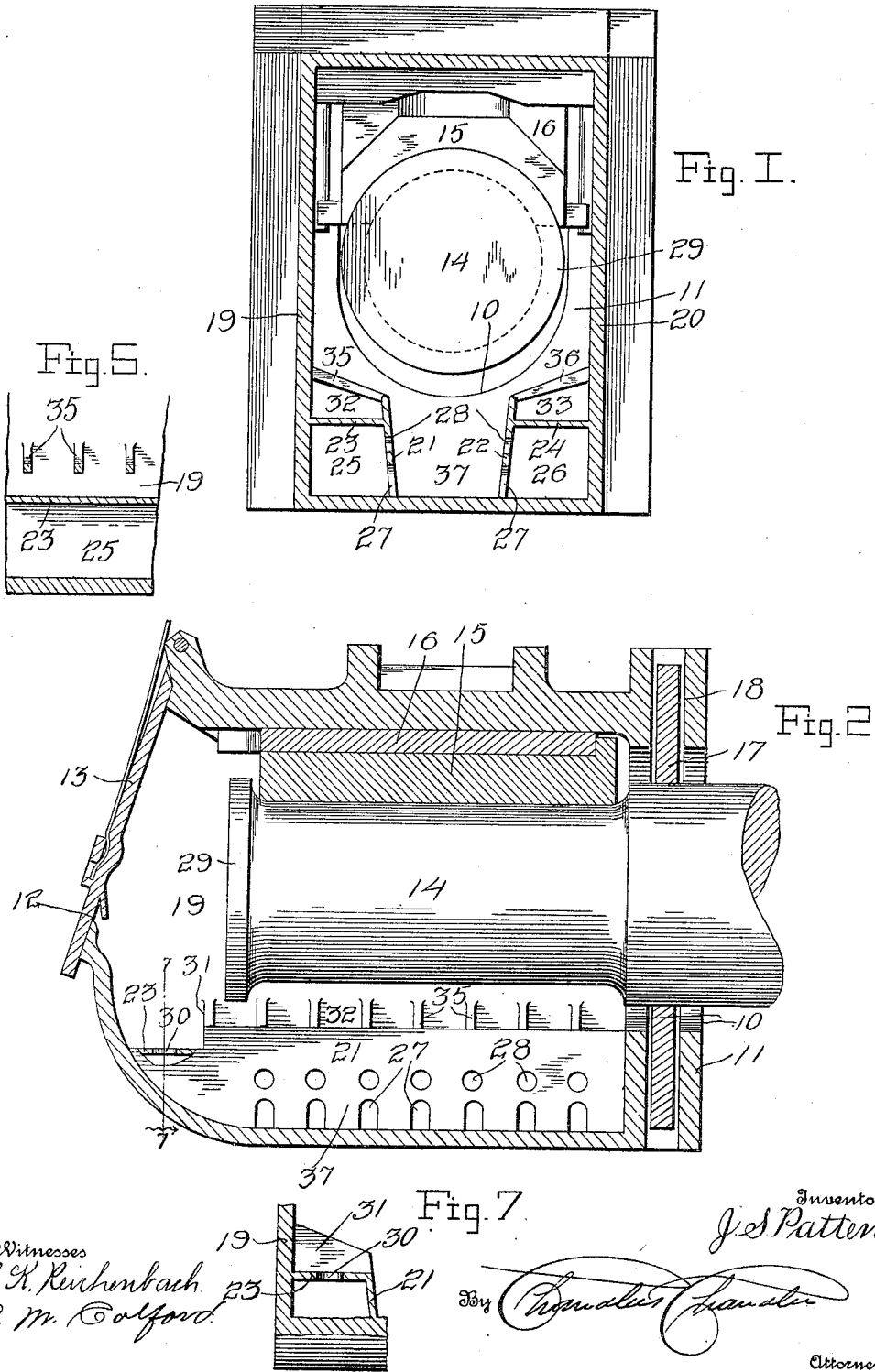


No. 822,761.

PATENTED JUNE 5, 1906.

J. S. PATTEN.
JOURNAL BOX FOR CARS.
APPLICATION FILED APR. 12, 1905.

2 SHEETS—SHEET 1.

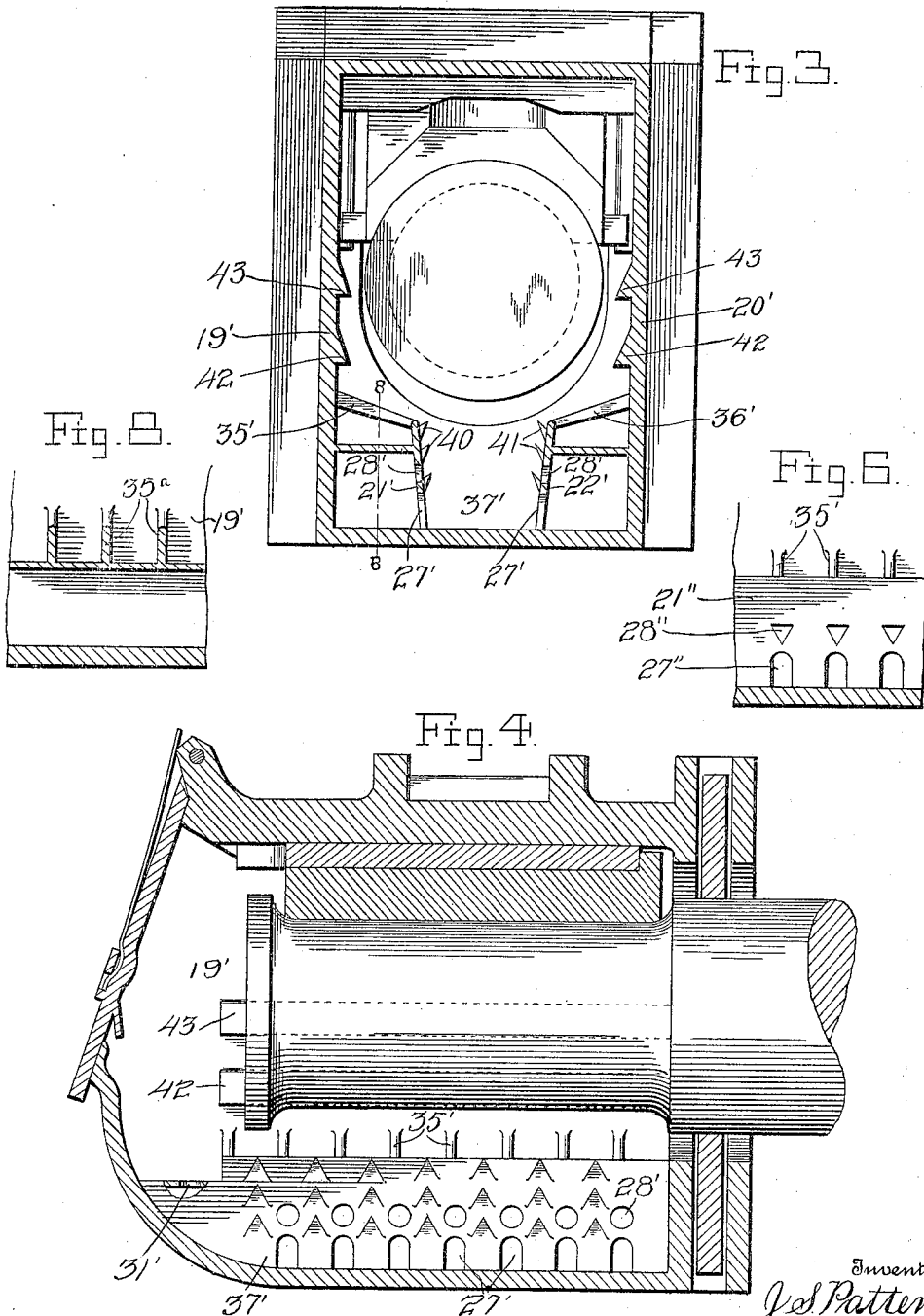


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2 SHEETS—SHEET 2



Witnesses
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UNITED STATES PATENT OFFICE.

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JOURNAL-BOX FOR CARS.

No. 822,761.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed April 12, 1905. Serial No. 255,226.

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 Cars; 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, and has for its object to provide an improved structure wherein there will be required a minimum quantity of waste without reducing the efficiency of the box, while the usual quantity of oil may be carried in the box to be fed to the journal through the waste in the usual manner.

A further object of the invention is to provide an improved structure wherein the waste as it settles will be fed in the direction of the journal, while at the same time the waste will be retarded in its settling movement.

An additional object of the invention is to provide a journal-box wherein the quantity of oil may be readily determined without disturbing the waste.

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 transverse section through a journal-box embodying the present invention, the section being in a plane beyond the free end of the journal. Fig. 2 is a vertical section taken longitudinally through the journal-box with the journal in elevation. Fig. 3 is a view similar to Fig. 1, illustrating a second embodiment of the invention. Fig. 4 is a vertical section taken longitudinally through the structure shown in Fig. 3, with the journal in elevation. Fig. 5 is a section on line 8 8 of Fig. 3. Fig. 6 is a vertical section taken longitudinally through a portion of the lower part of the box and illustrating a part of the side wall of the waste-pit provided with triangular openings for lodgment of waste therein. Fig. 7 is a section on line 7 7 of Fig. 2. Fig. 8 is a section on line 8 8 of Fig. 3.

Referring now to the drawings, and more particularly to Figs. 1 and 2 thereof, there is illustrated a journal-box the exterior shape of which follows the regulation type, there being an opening 10 in the rear wall 11 thereof to receive the journal and a front opening 12, provided with a hinged lid 13 and means for holding it in closed position yieldably. The position of the journal is illustrated at 14 with the usual brass 15 thereon and a wedge 16, while a dust-guard 17 is disposed in the vertical passage 18 in the rear end wall of the box. Spaced inwardly from the sides 19 and 20 of the box are the downwardly-convergent side walls 21 and 22, which extend from end to end of the box. Connecting the walls 21 and 22, near their upper ends with the walls 19 and 20, respectively, are the webs 23 and 24, respectively, which likewise extend from end to end of the journal-box. Each web and its corresponding slanting wall incloses in connection with the adjacent side wall of the box and the bottom of the box an oil-chamber, (illustrated at 25 and 26, respectively.) In each of the walls 21 and 22 is a longitudinal series of openings 27, reaching to the floor of the journal-box, and above these openings is a longitudinal series of perforations 28. The portion of each of the walls 21 and 22 that projects above the web extends from the rear end of the box to a point just beyond the collar 29 at the free end of the journal, and through each web between the end of the journal and the front end of the box is formed an opening 30, which permits of an inspection of the space therebelow. At the forward end of that portion of each of the convergent walls 21 and 22 that projects above the webs 23 and 24, respectively, there is an end wall 31, which extends to the corresponding side wall of the journal-box, so that above each of the webs 23 and 24 there is formed an oil-reservoir 32 and 33, respectively. From the upper edge of each of the walls 21 and 22 to the adjacent side wall 19 and 20, respectively, there extend integral bars 35 and 36, respectively, which are in spaced relation and which slant downwardly and inwardly of the box and transversely thereof.

In practice the pit 37 between the walls 21 and 22 and the bottom of the box is packed with waste, which is also packed above the

bars 35 and 36 to lie thereon and in the spaces between the journal and the sides 19 and 20 of the box. Lubricating-oil is poured into the bottom of the box in the usual manner and passing through the openings 27 enters the chambers 25 and 26, where it remains ready to pass back through the opening 27 into the waste-pit to wet the waste and be carried by the latter to the journal. A part of the oil that is carried up by the waste passes between the bars 35 and 36 and into the supplemental reservoirs 32 and 33. In this way the supplemental reservoirs are kept full from the excess of lubricant that passes up through the waste, and the oil is subsequently taken from the supplemental reservoirs and carried to the journal by reason of the fact that the waste depends between the bars 35 and 36 so as to dip into the oil in the supplemental reservoirs. The hanging of the waste between the bars 35 and 36 thus insures efficient lubrication. The waste in the pit 37 projects in part through the perforations 28 and is thus held to some extent against rapid settling away from the journal. Referring now to Figs. 3 and 4 of the drawings, the downwardly-convergent walls 21' and 22' are provided with upwardly-directed barbs 40 and 41, respectively, which project toward the center of the box and on which the waste is adapted to hang so that rapid settling of the waste in the pit 37' is prevented. The side walls 19' and 20', above the bars 35' and 36', are provided with longitudinal ribs 42 and 43, respectively, the upper faces of which are beveled or slanted inwardly and downwardly of the box. The waste is packed above these slanting faces as well as below them, and as these faces slant in the direction of the journal they serve not only to support the waste in part but to direct it toward the journal as it settles.

In Fig. 6 of the drawings the wall 21'', that corresponds to the walls 21 and 21' in the other figures, has openings 27'' in its lower portion and additional openings 28'' thereabove, the openings 28'' being triangular in shape, with the angles directed downwardly, so that the waste that lodges in them will wedge in their narrowed portions. The walls 21' and 22' have perforations 28' there-

through above the openings 27' for the same purpose as the openings 28 and 27.

The opening 30 described in the structure illustrated in Fig. 2 and the corresponding opening 31' in the structure illustrated in Fig. 4 are designed to permit of inspection of the oil-chamber, so that the quantity of oil in the box may be determined without disturbing the waste, it being understood that there is one of these openings at each side of the box.

What is claimed is—

1. A journal-box for cars having a waste-pit, oil-chambers at the sides of the waste-pit and communicating therewith and separate waste-supporting portions above the chambers.

2. A journal-box for cars having a waste-pit in the lower portion thereof, oil-chambers at the sides of the waste-pit and communicating therewith and separate waste-supporting portions above the chambers and above the pit.

3. A journal-box for cars having a waste-pit in its lower portion, oil-chambers at the sides of the waste-pit, supplemental oil-reservoirs above the chambers and waste-supports above the supplemental reservoirs arranged to permit portions of the waste to dip into the supplemental reservoirs.

4. A journal-box for cars having a waste-pit in its lower portion, the side faces of the pit being adapted at intervals of their lengths to retard the downward movement of the waste thereover.

5. A journal-box for cars having a waste-pit in its lower portion, the side faces of the waste-pit being perforated at intervals of their lengths to retard the downward movement of the waste thereover.

6. A journal-box for cars having a waste-pit in its lower portion, the side faces of the pit having projections and perforations at intervals of their lengths to retard the downward movement of the waste thereover.

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

JAMES S. PATTEN.

Witnesses:

E. M. COLFORD,
S. S. WOOD.