

No. 824,578.

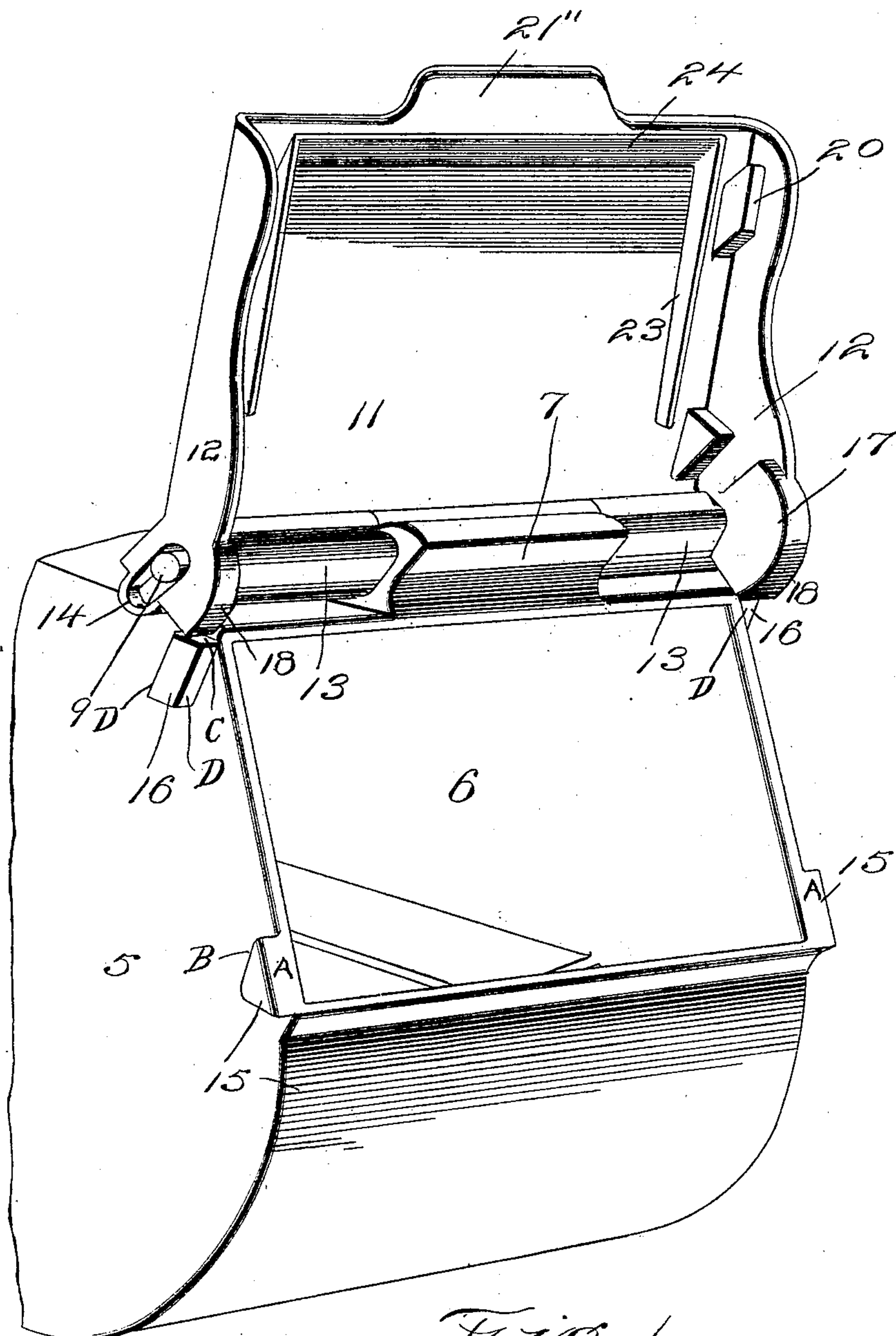
PATENTED JUNE 26, 1906.

J. S. PATTEN.

JOURNAL BOX.

APPLICATION FILED DEC. 10, 1904.

2 SHEETS—SHEET 1.



Witnesses
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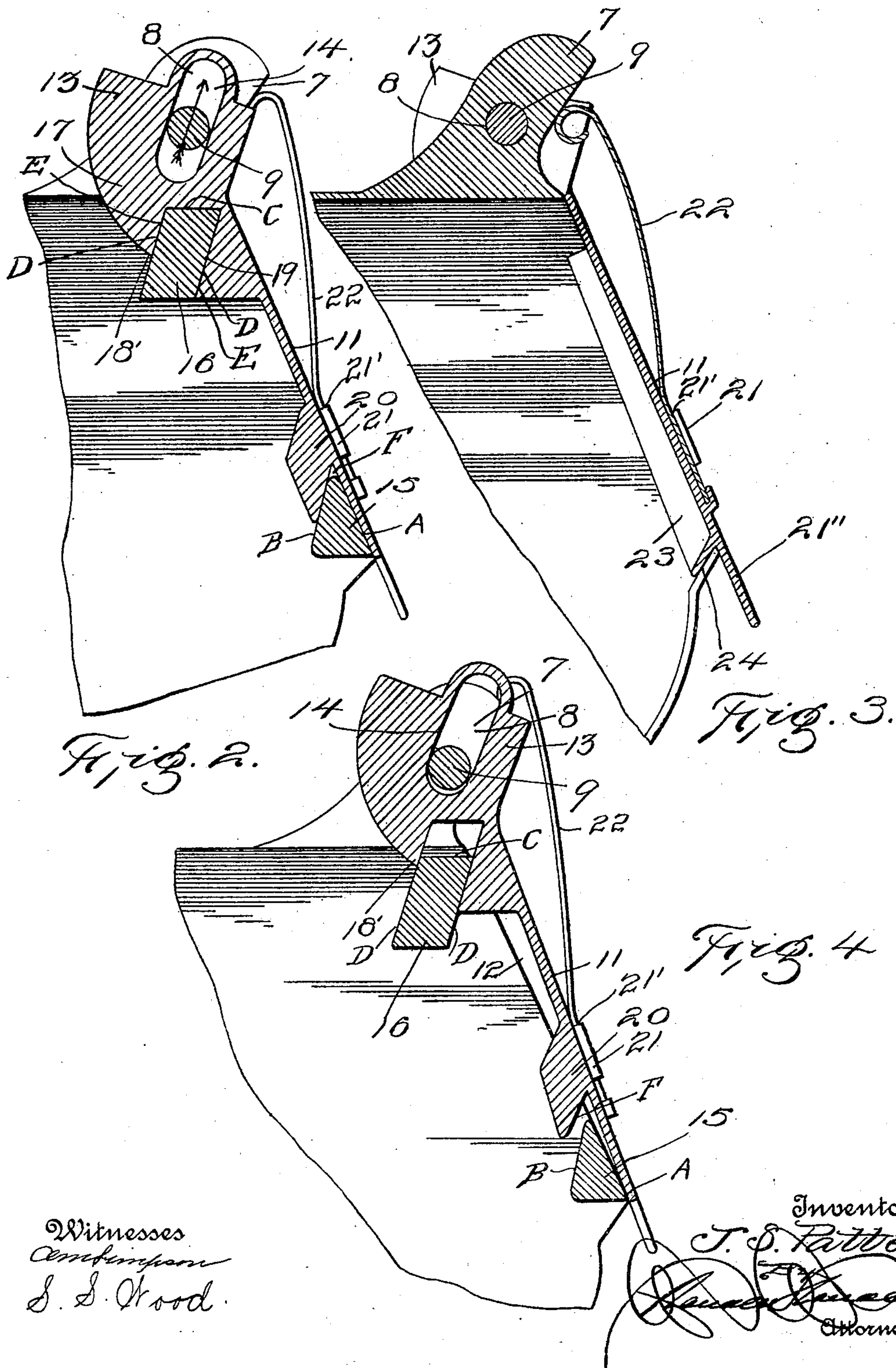
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Witnesses
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UNITED STATES PATENT OFFICE.

JAMES S. PATTEN, OF BALTIMORE, MARYLAND, ASSIGNOR TO BALTIMORE JOURNAL BOX COMPANY, OF BALTIMORE CITY, A CORPORATION OF MARYLAND.

JOURNAL-BOX.

No. 824,578.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed December 10, 1904. Serial No. 236,288.

To all whom it may concern:

Be it known that I, JAMES S. PATTEN, a citizen of the United States, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Journal-Boxes; 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, and more particularly to those designed for use on railway rolling-stock, and has for its object to provide a box so arranged that the lid when in operative position will be held against accidental displacement and in which the lid will form a tight union with the box to prevent the passage of dirt and cinders into the latter.

Another object is to provide a journal-box embodying these features and in which the lid thereof may be quickly and easily moved into inoperative position and which will be so arranged that wear of the moving parts will not affect the close union of the lid with the box mentioned above.

Other objects and advantages will be apparent from the following description.

In the drawings forming a portion of this specification, and in which like characters of reference indicate similar parts in the several views, Figure 1 is a perspective view of the invention, partly broken away and showing the lid raised. Fig. 2 is a section taken through the interlocking lugs at one side of the box with the lid in operative position. Fig. 3 is a central vertical section of the box, taken longitudinally thereof, a portion of the box being broken away. Fig. 4 is a sectional view similar to Fig. 2, showing the lid in the position which it occupies when it has reached the downward limit of its pivotal movement, the interlocking lugs having been just moved into engagement with each other.

Referring now to the drawings, the present journal-box includes the usual body portion 5, having the customary opening 6 at the upper portion of its outer end, the side edges of this opening slanting downwardly and outwardly, as illustrated.

Formed upon the upper face of the box intermediate of the sides thereof there is an elongated projection 7, which extends trans-

versely of the box, and the upper outer corner of this projection extends outwardly beyond the upper side of the opening 6, the outer face of the projection slanting downwardly and inwardly, as shown. The projection has a perforation or passage 8 formed therethrough, which extends transversely of the box, and engaged in this passage there is a pivot-bolt 9, which extends beyond the end of the projection and projects slightly beyond the sides of the box.

A lid is provided which consists of a plate 11 of a size to cover the opening 6, and at its side edges this plate is provided with walls 12, extending at right angles thereto and which receive the box therebetween when the lid is in operative position.

At its upper edge the plate is provided with spaced wings 13, arranged to receive the projection 7 therebetween, and these wings slant outwardly at a slight angle to the outer face of the plate 11. Formed longitudinally through the wings 13 are registering passages 14, which have in cross-section a somewhat oblong shape, the ends of the oblong being rounded, and the major transverse dimensions of these passages extend parallel to the forward slanting faces of the wings and at an angle to the face of the body portion having the opening. The passages 14 register with the passage 8 and receive therewithin the pivot-bolt 9, this bolt when the lid is in operative position and when the box is first put in use lying approximately in the centers of the passages 14. It will thus be apparent that if the lid be moved longitudinally of the major transverse dimensions of its passages 14, as indicated by the arrow in Fig. 2, the direction will be one extending upwardly and outwardly from the opening 6.

Formed upon the outer faces of the sides of the box adjacent to the lower edge of the opening 6 are triangular lugs 15, one face of each of the lugs (indicated at A) lying flush with the outer face of the box at the sides of the opening 6. The opposite faces of the lugs slant inwardly and downwardly, as shown at B.

Formed upon the outer faces of the sides of the box adjacent to the upper end of the openings are lugs 16, which have the general form of a rhomboid, one of the minor ends C of each lug being disposed parallel and spaced

slightly from the upper face of the box, so that the two major slanting sides D of the lugs extend inwardly and downwardly from the slanting face of the box at the sides of the opening 6 and from the upper face of the box. Lugs 17 are formed upon the inner faces of the walls 12 adjacent to the wings 13, and these lugs are disposed to bear against the upper faces of the lugs 16 at times, the portions which bear against these lugs being rounded, as shown at 18. The portions 18 of the lugs 17 rest against the upper faces of the lugs 16 when the lid is raised, the lugs 17 being provided with recesses 19 therein for the reception of the lugs 16 when the lid is in its operative position, as shown in Fig. 2, and the arrangement is such that when the lid is at the downward limit of its pivotal movement upon the bolt 9 the recesses 19 are in position to receive the lugs 16 therewithin. By reason of the fact that the major slanting sides of the recesses 19 (indicated at E) occupy planes parallel to those of the major transverse dimensions of the passages 14 mentioned above movement of the lid slidably upon the bolt 9, as mentioned above, will bring the lugs 16 into and out of engagement with the recesses 19, and the arrangement is such that the lid is held against sliding movement except when at the downward limit of its pivotal movement, as will be seen.

Formed upon the inner faces of the walls 12 adjacent to the free edge of the lid are lugs 20, the faces F thereof that lie in the direction of the free edge of the lid extending in an acute angle to the adjacent portion of the inner face of the lid, and the angle of this face F and the adjacent portions of the plate 11 corresponds to the angle of the forward and rearward faces A and B of the lugs 15, so that the upper portions of these lugs may fit into the angle formed by the faces F of the lugs 20 and the under face of the plate 11. The lugs 20 are so disposed that when the lid is at the downward limit of its pivotal movement and the recess 19 is in position to receive the lug 16, as mentioned above, the lugs 20 are in position to slide downwardly and behind the lugs 15 when the lid is moved slidably to bring the lug 16 into the recess 19. The parts are shown in Fig. 4 in the position which they occupy at the beginning of the downward sliding movement. When the lid is in operative position, as shown in Fig. 2, it forms a tight union with the surface of the box surrounding the opening 6, thus preventing the passage of foreign matter into the box. By reason of the fact that the passages 14 extend above the bolt 9 when the lid is in its operative position, as shown in Fig. 2, the lid is free to settle to compensate for wear of the lugs and the engaging portions of the lid and the box, so that this wear does not affect the tight union of the lid with the box.

Formed upon the outer face of the plate 11

there is a boss 21, having a slot in its upper edge 21', and engaged in this slot is one end of a strap-spring 22, which has its other end curled inwardly and which rests when the lid is closed with this curled portion against the outer slanting face of the projection 7, as shown in Fig. 3, this spring thus holding the lid in operative position. A flange 21" is carried by the plate 11 at its free edge and extending outwardly beyond the outer face of the box.

In use when it is desired to open the box the flange 21" is struck with a hammer or other suitable implement to move the lid slidably upon the bolt 9, thus disengaging the recess 19 and the lugs 20 from the lugs 16 and 15, respectively, and bringing the corners 18' of the rounded portions 18 of the lugs 17 just above the upper faces of the lugs 16, the remainder of these rounded portions extending rearwardly of the lugs, as will be seen from Fig. 4. The lid is now moved pivotally upon the bolt 9, which moves the plate 11 away from the opening 6, the rounded portions 18 of the lugs 17 resting upon the upper faces of the lugs 16, as will be readily understood. When the lid is moved slidably upon the bolt 9, as just described, to bring the lid out of its operative position, the curled end of the spring 22 is moved above the upper edge of the outer face of the projection 7, and when the lid is moved pivotally the curled end of the spring moves rearwardly over the curved upper and inner faces of the projection 7, thus holding the lid raised. When the lid in being moved to its operative position reaches the downwardly limit of its pivotal movement, the spring, coming again into engagement with the slanting face of the projection 7, aids in moving the lid into its operative position.

An oil-directing flange 23 is formed in the under face of the plate 11 and slants downwardly and inwardly to return oil splashed against the plate 11 to the interior of the box.

By reason of the fact that the sides E of the recess 19 are slanted upwardly and outwardly and the sides D of the lug 16 are similarly slanted the lid, when it is slid upwardly, is moved outwardly from the box.

It will be understood that the use of "forward," "rearward," "upper," "lower," &c., as applied to different portions of the structure refer to the box with the lid in its closed position.

What is claimed is—

1. In a device of the class described, the combination with a body having an opening therein, of a lid for the opening, said body portion having a projection upon its upper face, a bolt arranged in the projection and extending beyond the sides thereof, said lid having wings provided with passages in which the bolt is pivotally engaged, said passages being elongated transversely in one direction

to permit of sliding movement of the wings upon the bolt, said body portion having lugs upon its side faces adjacent to the upper faces thereof, and having other lugs upon its side faces adjacent to the lower edge of the opening, said lid having lugs adjacent to the free edge thereof arranged for engagement with the second-named lugs to hold the lid against pivotal movement, said lid also having lugs adjacent to the wings and provided with recesses arranged for the reception of the first-named lugs, said lugs of the lid being arranged for movement into and out of engagement with the lugs of the body portion when the lid is moved slidably upon the bolt, the recessed lugs having portions extending rearwardly of their recesses and rounded, and adapted to bear with their rounded portions against the upper faces of the first-named lugs when the lid is moved pivotally, to bring it into and out of position to permit of engagement of its lugs with those of the body portion.

2. In a device of the class described, the combination with a body portion having an opening in one of its faces, of a pivot-pin carried by the body portion, a lid for the opening provided with ears having elongated openings in which the pivot-pin is slidably and pivotally engaged, said lid being movable pivotally upon the pin into and out of operative position and being arranged for movement slidably upon the pin in a plane at an angle to the open face of the body portion, the slots of the ears extending outwardly and away from the open face of the body portion when the lid is in operative position, said pin lying in spaced relation to the outer ends of the slots when the lid is in closed position

to prevent further movement of the lid upon the pin toward the body portion to compensate for wear, said lid and body portion having interlocking lugs arranged for movement into coöperative position to hold the lid against pivotal movement when it is moved slidably in the direction of the body portion.

3. In a journal-box for cars, the combination with a body portion, of a lid pivotally and slidably connected with the body portion, said body portion having locking members, said lid having locking members movable therewith into locking engagement with the first-named members when the lid is slidably moved, certain of the locking members of the lid being disposed and arranged for co-operation with certain of the locking members of the body to hold the lid positively against sliding movement except at a certain predetermined point of its pivotal movement.

4. In a journal-box for cars, the combination with a body portion, of a lid pivotally and slidably connected with the body portion and having locking-lugs, said body portion having locking-lugs, the lugs of the lid being movable therewith into locking engagement with those of the body portion when the lid is slidably moved, certain of said lugs of the lid being disposed and arranged for engagement with the lugs of the body to hold the lid against sliding movement except at a certain predetermined point of its pivotal movement.

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

JAMES S. PATTEN.

Witnesses:

NELLIE LATHAM,
H. CARHART SHIMER.