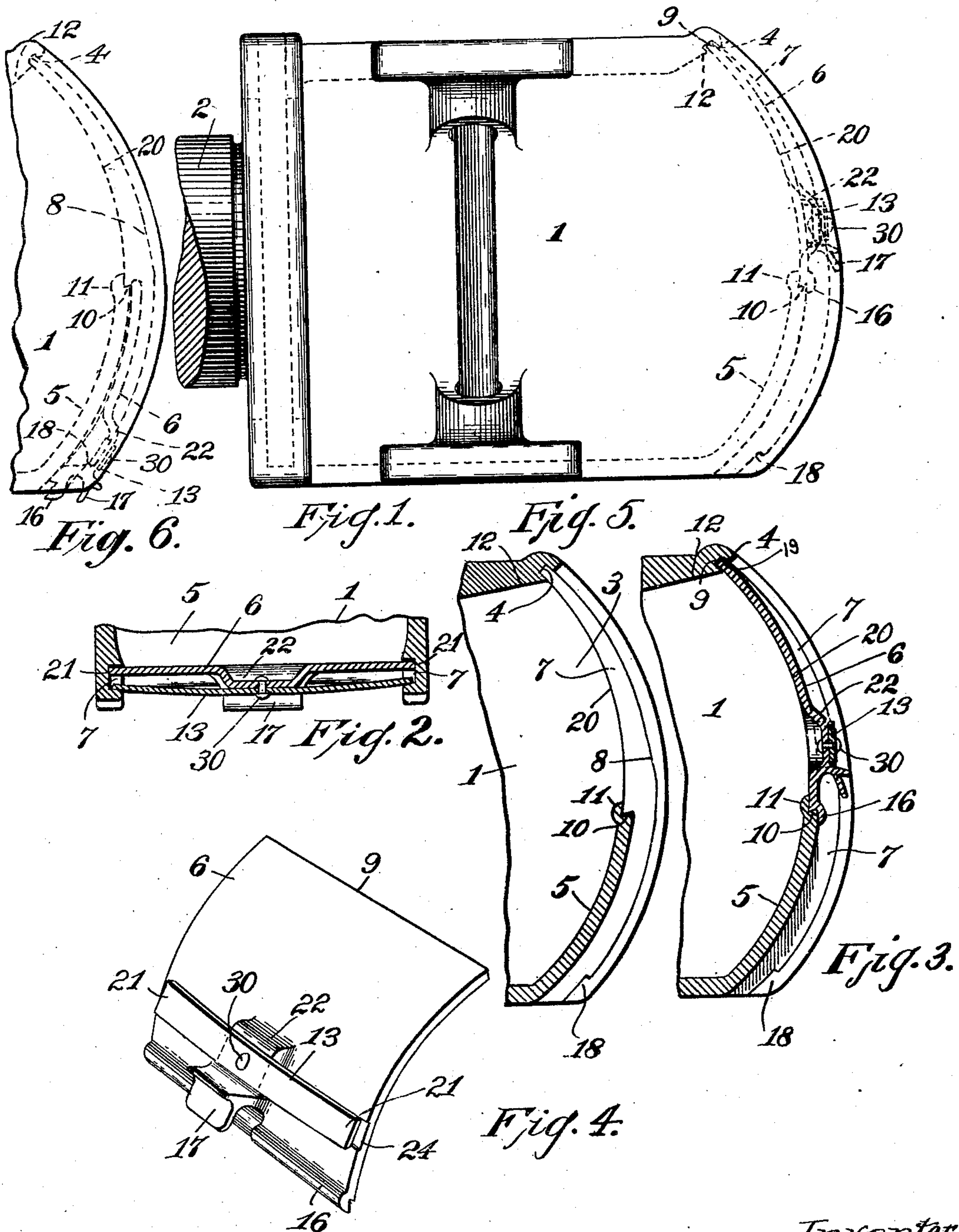


No. 842,152.

PATENTED JAN. 22, 1907.

S. J. JOHNSON.
JOURNAL BOX AND LID.
APPLICATION FILED OCT. 28, 1903.



Witnesses:

R. W. Pittman
Robert Adt

Inventor.
Sinclair Johnson.
By his attorney,
J. A. Richards

UNITED STATES PATENT OFFICE.

SINCLAIR J. JOHNSON, OF MONTCLAIR, NEW JERSEY.

JOURNAL BOX AND LID.

No. 842,152.

Specification of Letters Patent.

Patented Jan. 22, 1907.

Original application filed December 3, 1900, Serial No. 38,382. Divided and this application filed October 28, 1903. Serial No. 178,831.

To all whom it may concern:

Be it known that I, SINCLAIR J. JOHNSON, a citizen of the United States, residing in Montclair, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Journal Boxes and Lids, of which the following is a specification.

This invention pertains to journal-boxes and lids therefor, and is a divisional application directed to certain subject-matter contained in my United States Letters Patent granted on October 29, 1901, and which bears No. 685,381.

An object of this invention is to securely close the box, whereby to exclude the dust therefrom, and to provide a lid which will normally remain in a closed position, but which may at will be readily opened to permit access to the box.

Another object of the invention is to provide a lid which will leave the entire opening of the box practically free of access and which shall not project beyond the box when it is open.

Another object is to provide for the protection of the lid when the box is open and when it is closed.

In such drawings as accompany this specification, Figure 1 illustrates a side elevation of a journal-box made according to my present invention. Fig. 2 is a transverse section of a portion thereof. Fig. 3 illustrates a fragmentary vertical section, showing the lid in its closed position. Fig. 4 illustrates a perspective of the lid. Fig. 5 is a fragmentary sectional view showing a portion of the box with lid removed to show the lidway, and Fig. 6 illustrates diagrammatically the lid lowered to an open position.

Similar characters of reference indicate like parts throughout the figures.

In such particular embodiment of the invention as is illustrated the journal-box 1 surrounds the journal 2. At the outer portion or end of the box, preferably at the upper side of its front face, is an opening 3, giving access to the interior. This front face is preferably curved outwardly, the curve preferably extending the length of the opening and for some distance beyond. At top end of the opening in this curved face may be provided a groove or depression 4, and at or near the opposite side of the opening is a wall 5.

To close the opening in the box, a lid 6 is provided having sufficient length to extend from the groove 4 to the top of the wall 5, and is so shaped in this direction as to substantially conform to the curved face hereinbefore referred to. In its width the lid covers the opening and is preferably adapted to slide along its outer edges and in ways formed on the side walls of the box. These ways in the present instance may comprise grooves 7, which may be formed on the extended inner face of the vertical walls of the box 1 and in their present form are shown as two longitudinal channels. For a portion of their distance the sides of the channels are curved upon arcs having different centers and different radii, thus bringing the upper portion of said grooves in proper relation with the groove 4 at the top of the box. Suitably positioned in the length of these ways 7 is an inclined portion 8, which forms a cam-face for purposes which will be hereinafter set forth.

In the closed position of the lid its upper edge 9 extends into the groove 4, while the opposite end rests on the top 10 of the wall 5, at the inner end of which is a protecting-bead 11 to prevent the ingress of dust at this point, and this top portion 10 of the wall 5 is disposed in a line circumferential to top 9 of lid or groove 4 of the box, so that, as shown, for instance, in Fig. 3, the contact between the lid 6 and the wall 5 is such as will insure a stable contact when the lid is closed and yet at the same time permit the lid to be easily removed. The relation of the groove 4 to the upper portion of the edges of the ways upon which the lid slides and the thickness of the upper edge of the lid itself are such that said lid when closed contacts closely to the outer and inner wall of the ways to prevent the entrance of dust. To hold the lower edge of the lid into engagement with the wall 5, a spring 13, here shown as a leaf-spring, is provided, whose ends extend a distance suitable to cause the same to enter the ways 7 when the lid is in place. This spring, which, although shown adjacent to the lower edge of the lid, might be located at any point where it proves most effective, also acts to press the lid against portions of the box at the edges of the openings with which its under side contacts, thus excluding dust from all points. The lid may be also provided with a corresponding lid 16, like that of 11 of the wall 5, and contacts between the lips and the opposite surfaces of the wall and

lid are maintained by the spring 13 and in conjunction furnish an effective dust-guard for these meeting edges.

To release the lid to uncover the opening, the lower edge is drawn outward against the spring by a finger-piece 17, cast with or secured to it, until it clears the top 10 of the wall 5. It is then drawn downward between the wall 5 and the outer portion of the groove or ways 7, the tension of the spring relaxing and the resistance decreasing as it slides past the incline 8 of the ways 7. This incline extends a short distance, when it increases the width of ways, so that the resistance to movement is reduced to a minimum, and permits the lid to drop freely downward to expose the entire opening, and the spring of the lid will then rest on a projection or flange 18 near the bottom of the ways. It will be seen that, in closing the lid, as the spring slides up the inclines 8 its tension will be gradually increased and when the lower edge of the lid passes the end 10 of the wall 5 it will be drawn to its locked position and held firmly in place. At the same time the upper edge of the lid is held by the side of the channel against the inner edge 19 of the groove 4 and the inside of the lid against the side edges 20 of the opening by the spring.

The spring may be secured to the lid in any manner, and in the present form the lid is shown provided with an offset or projection 22, preferably cast into the lid into which said spring may be riveted, as at 30. Also, if desired, said lid may be provided with the cut-out portions 24 at either side and wherever the spring will be disposed thereon, so that the edge extremities 21 of said spring 13 can be depressed, if necessary, into the portions 24.

It will be seen that in this journal-box the lid is held firmly closed and yet may be easily and quickly opened, and that it is moved from the opening in such a manner as to at once give a view to the interior, and that as it drops downward to be easily out of the way of the person packing or oiling the box, leaving the opening convenient to access, not projecting beyond the place in which it moves, and by reason of the fact that it is confined within ways on the interior of the extended side walls, the lid is constantly protected either in its opened or closed position.

Although the face of the box on which the lid slides has been shown as curved substantially on an arc of a certain radius, manifestly this particular form is not essential, since the cover may be widely varied, being flattened or on a longer radius with the lid of corresponding form.

Having thus described my invention, I claim—

1. The combination with a journal-box having a curved front provided with an opening, of a curved sliding lid therefor, and

means for securing the lid in its upper position to close the box, the box having extended walls provided with ways for the lid on their interior faces and having two portions of a maximum and a minimum width, and an intermediate gradually-inclined portion.

2. The combination with a journal-box having an opening, of a spring-pressed sliding lid therefor adapted to be released and lowered to open the box, said box being provided with ways for the lid in the interior of the extended side walls of the box, said ways having two portions of a maximum and a minimum width, and an intermediate gradually-inclined portion.

3. The combination with a journal-box provided with a curved end and having an opening, of a sliding lid therefor and a spring to control the lid, said box being provided with ways for the lid in the interior of the extended side walls thereof, and which gradually decrease in width toward the top of said opening so as to offer the most resistance to movement at the instant of closing the lid, and the least resistance as the lid is opened.

4. The combination with a journal-box having an opening, of a sliding lid therefor movable downward to uncover the opening, and means for securing the lid in its closed position, the inner portions of the extended walls of the box being provided with ways for the lid and means, said ways having two portions of a maximum and a minimum width for offering most resistance to the movement of the means and lid when the lid is in a raised position, and least resistance while it is being lowered, said ways also having an intermediate gradually-inclined portion effective upon the securing means during the releasing and engagement of the lid.

5. The combination with a journal-box provided with a curved end having an opening, of a spring-pressed curved lid therefor, the inner portion of the extended interior walls of said box having ways for the lid provided with walls curved upon arcs having different centers, and an intermediate inclined portion.

6. The combination with a journal-box provided with a curved end having an opening, of a spring-pressed curved lid therefor the inner portion of the extended walls of the box having ways for the lid provided with walls curved upon arcs having different centers.

7. The combination with a journal-box having an opening and a sliding lid therefor adapted to close the same when the latter is raised, and which is movable upon ways on the interior of extended side walls of the box, said ways having two portions of different widths, and an intermediate inclined portion, of a spring secured to the lid and contacting with the walls of the ways to force the lid against the edge of the opening.

8. The combination with a journal-box provided with a curved end having an opening, of a spring-pressed curved lid therefor, the box having channels for the lid to slide in, said channels being provided in the interior of the extended side walls of the box and having walls curved upon arcs having different centers, and an intermediate inclined portion.

9. The combination with a journal-box provided with a curved end having an opening, of a spring-pressed curved lid therefor, the box having channels for the lid to slide in, said channels being provided in the interior of the extended side walls of the box and having walls curved upon arcs having different centers.

10. The combination with a journal-box provided with a curved end having an opening, of a spring-pressed curved lid therefor, said box having ways for the lid, said ways being provided in the interior of the extended side walls of the box, and having walls curved upon arcs having different centers, and an intermediate inclined portion, and a stop to arrest the movement of the lid.

11. The combination with a journal-box provided with a curved end having an opening, of a spring-pressed curved lid therefor,

said box having ways for the lid, said ways being provided in the interior of the extended side walls of the box and having walls curved upon arcs having different centers, and a stop to arrest the movement of the lid.

12. The combination with a journal-box having an opening and a sliding lid therefor movable upon ways on the interior of extended side walls of the box and adapted to be lowered in the ways to open the box, said ways having two portions of different widths and an intermediate inclined portion, of a spring secured to the lid and which contacts with the ways to force the lid against the edge of the opening, and a stop to arrest the movement of the lid.

13. The combination with a journal-box having a curved end and an opening therein, and ways on the interior of the extended side walls of said box, a lid movable in said ways and a spring carried by said lid and contacting with said ways, and adapted to close the box when in a raised position.

Signed at Nos. 9 to 15 Murray street, New York, N. Y., this 26th day of October, 1903.

SINCLAIR J. JOHNSON.

Witnesses:

FRED. W. BARNACLO,
FRED. J. DOLE.