

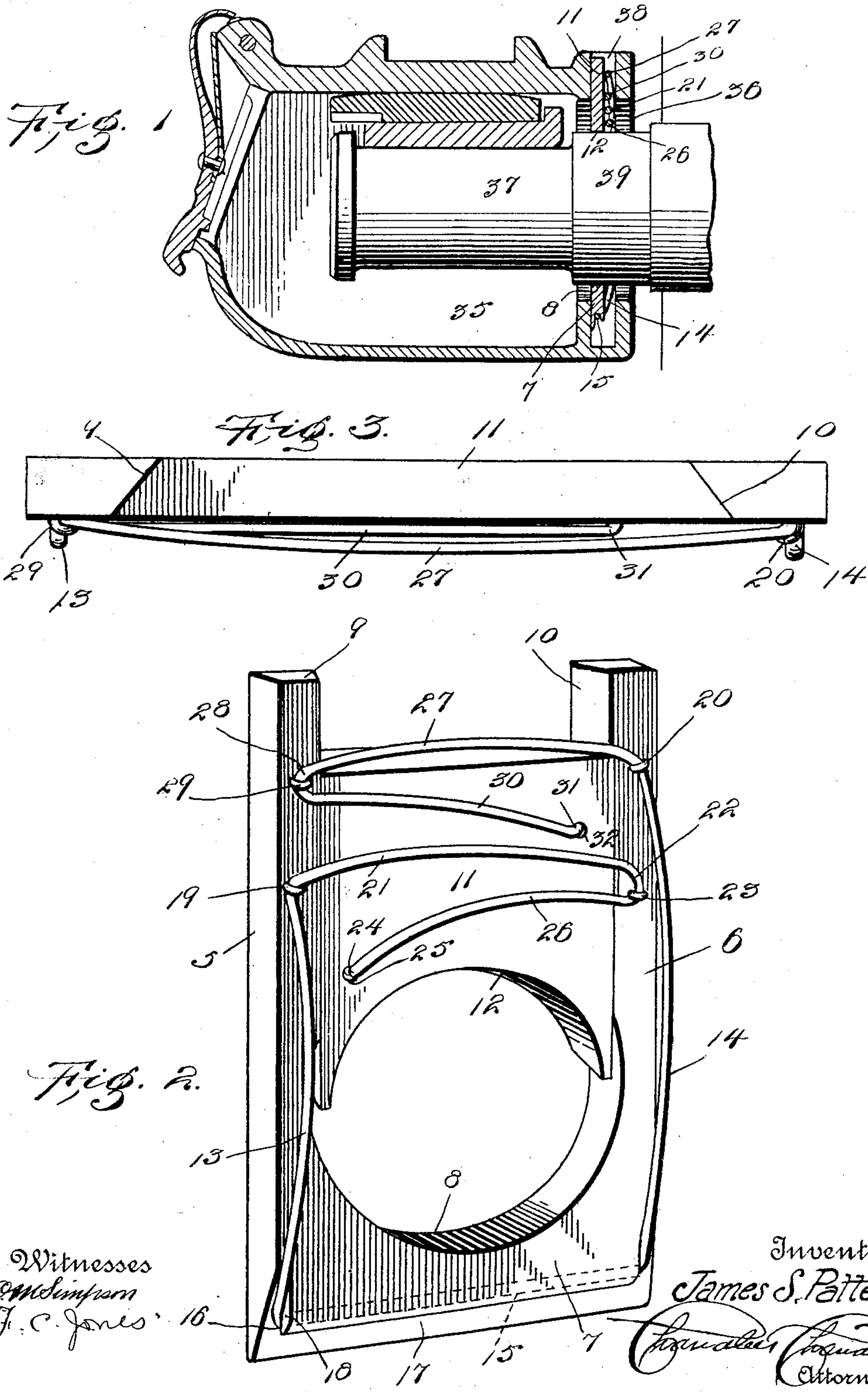
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J. S. PATTEN.
DUST GUARD FOR JOURNAL BOXES.

APPLICATION FILED NOV. 10, 1903.

NO MODEL.



UNITED STATES PATENT OFFICE.

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TO JOHN W. WOODLAND, OF BALTIMORE, MARYLAND.

DUST-GUARD FOR JOURNAL-BOXES.

SPECIFICATION forming part of Letters Patent No. 771,743, dated October 4, 1904.

Application filed November 10, 1903. Serial No. 180,626. (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, State of Maryland, have invented certain new and useful Improvements in Dust-Guards for 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 dust-guards for journal-boxes for car-axles, the object of the invention being to provide a guard which will fit snugly around the axle and will be automatically adjusted to compensate for wear, the spring employed for thus adjusting the parts being so arranged as to hold the parts with their contacting faces close to prevent passage of dust therebetween and, further, to hold the guard in close contact with the face of the guide-slot and to hold the parts of the U-shaped member in their active positions in the event of fracture of said member.

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 longitudinally through a journal-box and a dust-guard therein, the journal being shown in elevation. Fig. 2 is a perspective view of the dust-guard. Fig. 3 is a top plan view of the dust-guard.

Referring now to the drawings, the present guard comprises an outer or major member of U shape, which includes the side members 5 and 6, having the connecting web or bight portion 7, the outer side faces of the members 5 and 6 being parallel, while the lower edge of the portion 7 lies at right angles thereto. The upper or inner face of the portion 7 of the major member is rounded, as shown at 8, and has a curvature of about two hundred and forty degrees, the inner faces of the members 5 and 6 being beveled, so that they converge transversely of the member, these beveled faces being shown at 9 and 10.

The dust-guard comprises also a minor member 11 in the form of a follower, the side edges of which are beveled, so that they converge transversely of the follower to correspond to the bevels of the edges 9 and 10 of the major member, between which beveled faces of the major member the follower or minor member is slidably disposed. The lower edge of the member 11 is concaved, as shown at 12, so that in one position it forms a continuation of the curvature of the wall 8 to present a true circle.

To hold the members together, a spring is provided formed of a wire and including the arms 13 and 14, having the connecting-bight 15, which latter is fitted in a groove 16, formed longitudinally of the lower edge of a major member, this lower edge being beveled transversely, as shown at 17. The side of the slot 16 at the upper side of the bevel is cut away at each end, as shown at 18, to permit of passage of the arms 13 and 14 from the slot 16 upwardly along the face of the major member, these arms being continued upwardly along the arms 5 and 6, to which they are stapled or otherwise attached, as shown at 19 and 20, the arms 13 and 14 between the attaching means 19 and 20 and the bight portion 15 being bent or curved away from the major member for a purpose to be presently explained. The members of the dust-guard above referred to as slidably connected or engaged are in practice formed of wood, and the arrangement of the arms 13 and 14 to hug tightly the walls of the cut-away portions 18 serves to strengthen the material of the major member and, furthermore, in the event of splitting of the bight portion to hold the resultant parts together.

From its point of attachment 19 the arm 13 is bent transversely across the member 11, as shown at 21, and part way over the arm 6, where it is bent upon itself, as shown at 22, and stapled or otherwise attached to the arm 6, as shown at 23, from which point it is returned part way over the member 11, and its extremity 24 is bent rearwardly and engaged in a perforation 25, the portion 26 of the arm between the attaching means 23 and the per-

foration 25 serving as a spring to urge and hold the member 11 yieldably in the direction of the wall 8.

The point of attachment 20 of the arm 14 is above the point of attachment 19 of the arm 13, and from the point of attachment 20 or attaching means the arm 14 is bent laterally, as shown at 27, to the arm 5, where it is bent upon itself, as shown at 28, and stapled or otherwise attached to said arm, as shown at 29, the wire being then returned part way over the member 11, as shown at 30, and having its extremity 31 bent rearwardly and engaged in the perforation 32 in the member 11.

The members or portions 26 and 30 serve not only to urge the minor member 11 in the direction of the wall 8, but their tension is such as to force the member 11 against the beveled edges 9 and 10, the portions 21 and 27 forming in connection with the beveled edges guides for the minor member.

The dust-guard is employed in connection with a journal-box such as shown at 35 in Fig. 1 and having an opening 36, through which the journal 37 is passed into the box, the opening 36 being intersected by a vertical guideway or slot 38, in which the dust-guard is disposed, the enlargement 39 at the base of the journal or inner end thereof lying in the opening of the guard between the walls 8 and 12, which are held in close contact therewith by the action of the spring-arms. When the guard is slid into the guideway 38, the outwardly-curved portions of the arms 13 and 14 by contact with the outer wall of said guideway force the major member close against the inner wall of the guideway, so that passage of dust between the guard and said inner wall is prevented. As the walls 8 and 12 wear by the friction of the axle the members of the guard are shifted by the spring-arms, so that they are held in close contact therewith at all times and no dust can pass.

It will be understood that in practice modifications of the specific construction shown may be made, and any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A dust-guard for journal-boxes, comprising members movable relatively to each other to fit upon the journal and means for holding said members yieldably in active positions, said means coacting with one of said members

to form a guide for the other member and between which holding means and said coacting member, the other member is received.

2. A dust-guard for journal-boxes comprising members having mutually-adjacent side faces beveled and in sliding contact, such members being formed to fit about a journal, and means connected to both members transversely thereof for holding said members yieldably against longitudinal separation and between which means and the bevel-face of one member, the other member is held against lateral displacement.

3. A dust-guard comprising a major U-shaped member having its inner longitudinal faces beveled to converge transversely of the member, a minor member having its side edges beveled and fitted against the inner faces of the major member, the inner edge of the bight portion of the major member and the opposite edge of the minor member being concaved, and the major member being grooved longitudinally of the outer edge of its bight portion, and a spring-wire engaged in the groove and bent at the ends of the groove to extend longitudinally of the spaced sides of the major member to which they are respectively attached, the wire from each side of the major member being bent transversely to the opposite side and attached thereto and then returned upon itself and attached to the minor member at the opposite side of the latter from its bevels, the wire between the groove and its first points of attachment to the sides of the major member being arched outwardly from the latter.

4. A dust-guard for journal-boxes comprising members slidably connected to fit about a journal, said members having their sliding faces formed to prevent lateral separation in one direction only and means connected to both members and between which and the sliding face of one member the other member is received and by which said means said other member is held against lateral movement of its sliding face from the sliding face of the coöperating member, said means being adapted to hold the members yieldably against sliding movement.

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

JAMES S. PATTEN.

Witnesses:

WARREN W. BROWN,
H. STOCKTON STARTT.