O. J. MILLER.

Car-Axle-Box Lid.

No. 211,579. Patented Jan. 21, 1879.

Fig. 1.

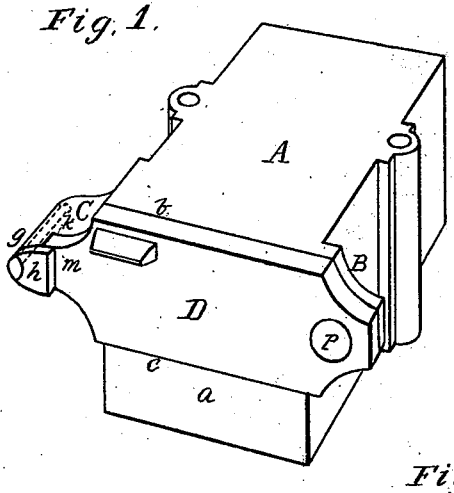


Fig. 2.

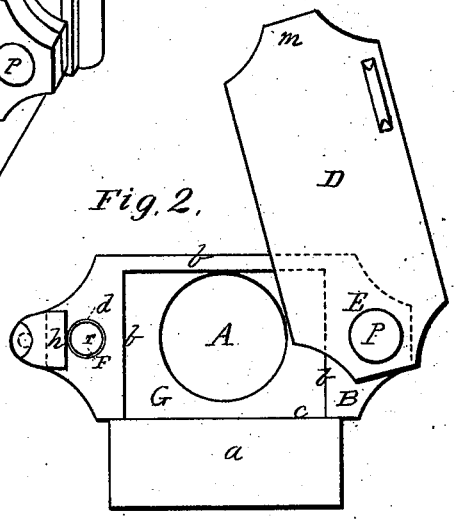


Fig. 3.

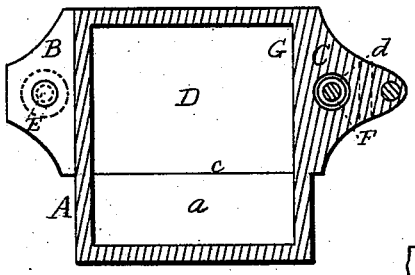


Fig. 4.

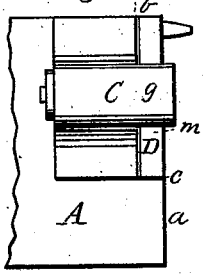


Fig. 5.

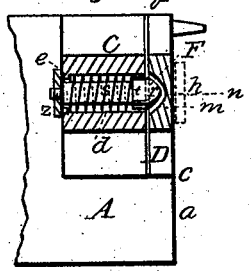
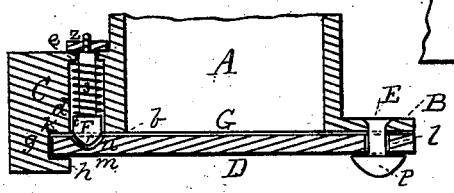


Fig. 6.



WITNESSES

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ORVILLE J. MILLER, OF BERGEN, NEW YORK.

IMPROVEMENT IN CAR-AXLE-BOX LIDS.

Specification forming part of Letters Patent No. **211,579**, dated January 21, 1879; application filed September 28, 1878.

To all whom it may concern:

Be it known that I, ORVILLE J. MILLER, of Bergen, in the county of Genesee and State of New York, have invented a new and valuable Improvement in Journal-Box Caps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a perspective view of my invention. Fig. 2 is a front view of the same. Fig. 3 is a vertical transverse section. Figs. 4 and 5 are details of the spring-catch and its seat. Fig. 6 is a horizontal section.

This invention has relation to journal-boxes; and it consists in the construction and novel arrangement, in connection with a journal-box having a recessed and flanged projection on the margin of its face, of a spring-catch, and an edgewise vibrating cap having a catch-recess and a loose rivet-pivot, as hereinafter shown and described.

In the accompanying drawings, the letter A designates the journal-box, whereof the front is open, with the exception of a short wall, *a*, which extends upward from the bottom of the box, and which projects beyond the plane of the margin *b* of the front opening, forming a shoulder, *c*. From one of the side margins of said opening extends laterally outward in the plane of said margins a flat lug, B, which is perforated for the passage of a large rivet, which serves as the pivot of the door-hinge. From the other side margin extends, also, outward a projection, C, of some thickness from back to front. This projection is also provided with a recess or perforation, *d*, extending from before backward, and designed to receive the spring-catch.

In order to afford a purchase for the spring, this perforation is formed with an annular internal flange, *e*. At its outer extremity the projection C is provided with a lug, *g*, which extends in front of its plane front surface, and terminates with an inwardly-turned flange, *h*, parallel with the margin of the box-opening, which forms a short vertical groove, *k*, a little beyond the spring-catch, serving to receive the free edge of the cap or door when the latter is swung downward to close the box-opening.

D represents the cap or door. This is a flat plate having a plane inner surface adapted to slide on the margin *b* of the opening when swinging in the vertical plane to open or close the same. At one end it is provided with an opening, *l*, for the passage of the rivet of the hinge, the plate being extended at this end to correspond with the hinge-lug B of the box. At its other end the cap is provided with an extension, *m*, the edge of which is designed, when the cap is swung downward, to be received into the groove *k* of the projection C, and thereby held firmly against the end of the spring-catch, which is received into a locking-recess, *n*, in the rear face of the extension *m*. In this manner a very secure fastening is formed, making it impossible for the door to become loose or shake open on account of any lateral or horizontal vibration of the box.

E represents the rivet whereby the cap is pivoted to the box. This is a stud provided with a large head, *p*, of sufficient size and strength to guide the cap in its upward or downward swing when disengaged from the groove *k*. It is designed to be rigidly secured to the flat lug B, and of sufficient length to allow the cap to swing freely without play.

F designates the spring-catch. This is a shouldered stud having its upper end beveled toward its center in convex form, as shown at *r*. It is shouldered at *t*, and provided with a spring, *s*, which abuts against said shoulder, and against the annular internal rear flange, *e*, of the recess *d*. Its smaller end extends to the rear through said perforation, and is provided with a stop-collar, *z*, headed or otherwise secured to its end. When this stud is worn at its point the collar may be removed, and the stud taken out of its recess and repaired, or a new one may then be substituted.

This cap rests by its lower edge, when closed, upon the shoulder or ledge *c* of the short front wall of the box. It is designed to fit this shoulder and the margin of the opening G closely, so that upward vibration is prevented by the engagement of the catch with its recess

by gravity, and by the friction of the adjacent surfaces.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with a journal-box having the recessed and flanged projection C, of the spring-catch F, the edgewise vibrating cap D, having the catch-recess *d*, and the loose rivet-pivot E, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ORVILLE JAMES MILLER.

Witnesses:
C. F. MOSELY,
JAMES A. MILLER.