G. A. WOODMAN.

JOURNAL BOX.

APPLICATION FILED MAY 4, 1909.

956,659. **Patented May 3, 1910.**

Fig. 2

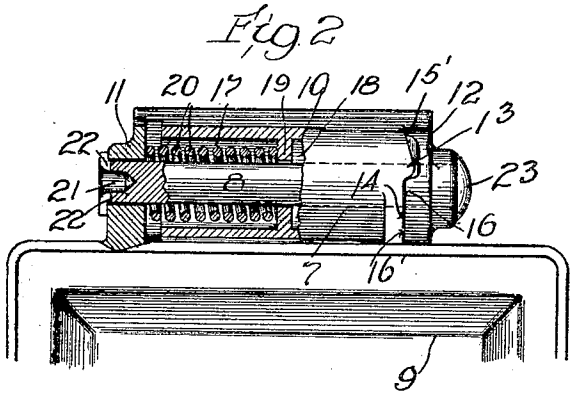


Fig. 1

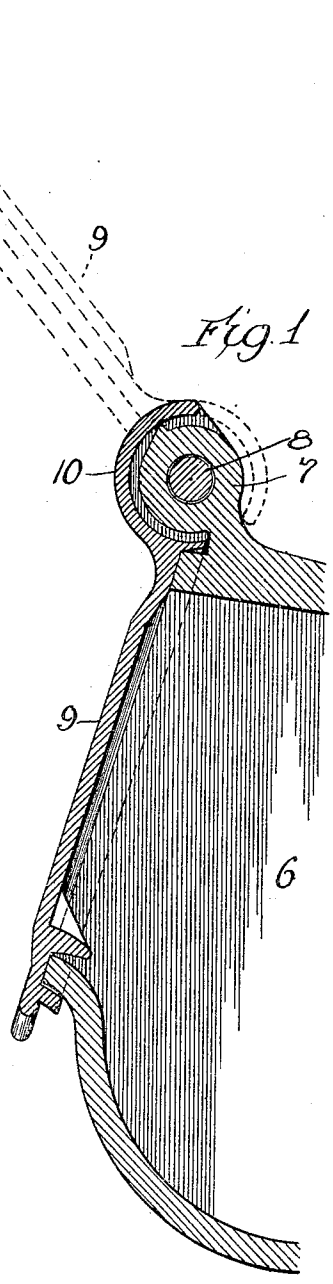


Fig. 3.

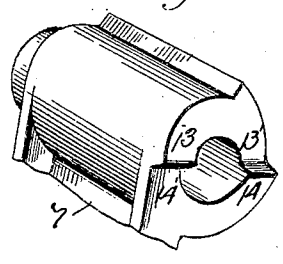


Fig. 4

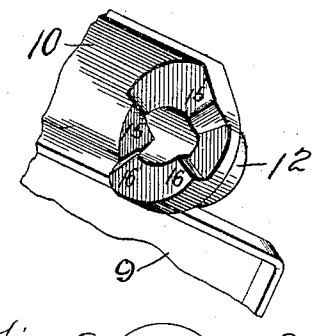
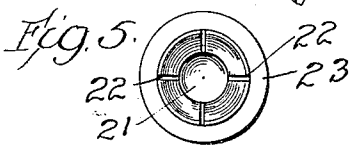


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

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JOURNAL-BOX.

956,659. Specification of Letters Patent. Patented May 3, 1910.

Application filed May 4, 1909. Serial No. 493,929.

To all whom it may concern:

Be it known that I, GEORGE A. WOODMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Journal-Boxes, of which the following is a specification.

This invention relates to certain new and useful improvements on the invention covered by Letters Patent No. 847,301 granted to me on March 12, 1907, and which provides novel means for holding the lid of the box securely in its open and closed positions and for closing the lid automatically and tightly when it is released from open position.

The object of this invention is to simplify and improve the construction and arrangement of parts and to lessen the cost of manufacture by reducing the weight of the parts incidental to the attachment of the lid to the body of the box.

In the accompanying drawings Figure 1 is a sectional view showing the lid closed in full lines and open in broken lines. Fig 2 is a plan view, partly in section, of the hinged connection of the lid to the box. Fig. 3 is a perspective view showing the cams on the box lug. Fig. 4 is a similar view showing the cams on the lid. Fig. 5 is an end view of the pintle.

Referring to the drawings, 6 designates a journal box of any suitable construction which is provided with a centrally located lug 7 bored to receive a pintle 8 which hinges the lid 9 to the box. The lid has a hood 10 which partly covers the box lug and is provided with ends 11 and 12 bored to receive the pintle. The box lug has at one end two cams 13, 14 on opposite sides of the pintle opening and flat faces 13′ and 14′ between said cams. One end, as 12, of the hood is provided on its inner side with two cams 15 and 16 and intermediate spaces 15′ and 16′ complementary to the cams and intermediate spaces on the box lug. These cams are arranged to interengage and ride one upon the other in substantially the same manner set forth in my former patent above referred to.

In my former patent the lid was provided with sleeves on either side of the box lug in one of which a spring is located but I have found that this spring can be located in the box lug, thereby greatly simplifying the construction and reducing the weight of the lid. I therefore make the box lug hollow and provide it with two chambers 17 and 18 separated from each other by an annular shoulder 19. The spring 20 is located in the chamber 17 and it bears at one end against the shoulder 19 and at its other end against the end 11 of the hood. The spring operates by expansion to hold the cam end 12 of the hood in operative engagament with the cam end of the box lug. As described in my former patent the cams and spring provide for holding the lid securely in its open and closed positions and also provide for closing the lid automatically and tightly when it is released from open position.

The pintle has a bore 21 and cross cuts 22 at one end (Fig. 5) and a head 23 at the other end. After the pintle is arranged in place the bored and cross cut end is spread out in riveted form by a suitable tool to secure the pintle in place.

What I claim and desire to secure by Letters Patent is:

1. The combination of a car axle box having a centrally disposed lug thereon, said lug being bored for a pintle and having cams at one end on opposite sides of the pintle bore and a spring chamber at the other end, a lid having a hood to partly cover said lug and provided with ends to lie opposite the ends of the box lug, said ends of the hood being bored for the pintle and one of said ends having cams on its inner side complementary to the cams on the lug, a pintle arranged in said bores to hinge the lid to the box, and an expansion spring confined within said chamber and bearing at one end against the box lug and at its other end against one of the ends of the hood to hold the cam end of the hood in operative engagement with the cam end of the lug.

2. The combination of a car axle box having an opening therein, a hollow lug on the box centrally disposed above said opening, oppositely disposed cams at one end of said lug, an annular shoulder within the lug dividing it into a spring chamber open at its outer end and another chamber between the shoulder and the cam end of the lug, said shoulder and cam end of the lug being

bored to receive a pintle, a lid having a hood to partly cover said lug, said hood having ends to lie opposite the ends of the lug and one of said ends having cams complementary to the cams on the lug to engage therewith, an expansion spring confined within the spring chamber between the shoulder and one end of the hood, and a pintle secured against endwise movement in the ends of the hood to hinge the lid to the box lug.

GEORGE A. WOODMAN.

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