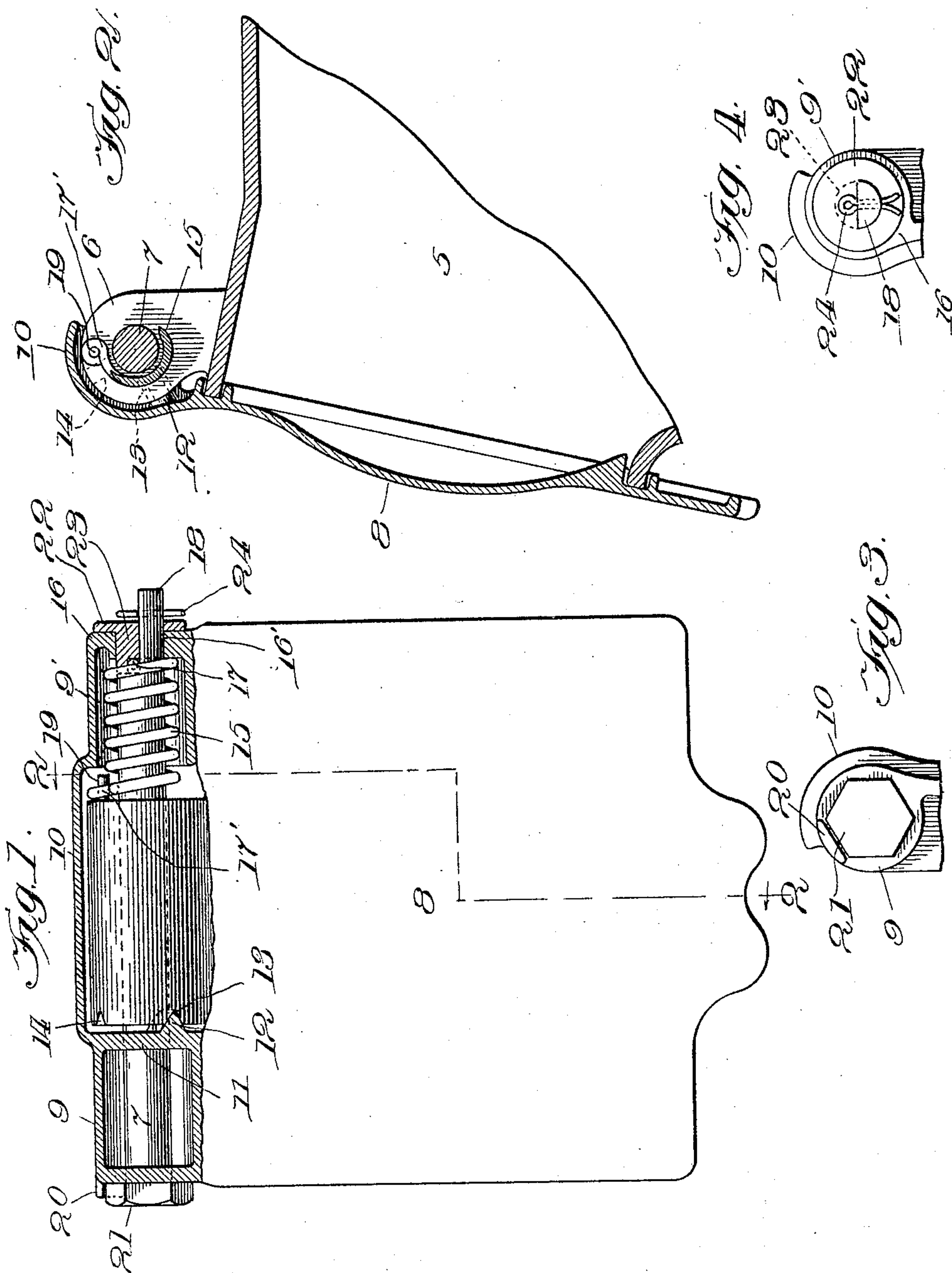


No. 799,365.

PATENTED SEPT. 12, 1905.

G. A. WOODMAN.
JOURNAL BOX LID.

APPLICATION FILED JUNE 29, 1905.



Witnesses:

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GEORGE A. WOODMAN, OF CHICAGO, ILLINOIS

JOURNAL-BOX LID.

No. 799,365.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed June 29, 1905. Serial No. 267,485.

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-Box Lids, of which the following is a specification.

The object of this invention is to provide for holding the lid of a car-axle box securely in its open and closed positions, and also to close the lid automatically and tightly when it is released from its open position.

In the accompanying drawings, Figure 1 is a front view of the lid, partly broken away and showing it hinged to a car-axle box. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Figs. 3 and 4 are detail end views.

The drawings illustrate one manner of embodying the invention, and referring thereto 5 designates a journal-box which is provided with the usual lug 6, bored to receive the pintle 7, which hinges the lid to the box. The lid 8 has sleeves 9 9' to fit on either side of the lug 6 and receive the pintle 7, and between these sleeves the lid is provided with a hood 10 to partly cover said lug. The inner end 11 of the sleeve 9 is provided with a projection 12, and the lug 6 has a notch 13 to receive said projection when the lid is closed and a notch 14 to receive said projection when the lid is open. The sleeves 9 9' are spaced apart sufficiently to permit an endwise play of the lid relative to the lug 6, and an expansion-spring 15 is arranged on the pintle within the sleeve 9' and bears against the outer end 16 of said sleeve and against the adjacent end of the lug 6 and operates to hold the lid in open or closed position with the projection 12 in the corresponding notch in the lug.

The outer end 17 of the spring is fastened to the lid or to the pintle in some suitable manner, and I have shown it bent across the half-round end 18 of the pintle. The inner end 17' of the spring is secured to a stud 19 on the lug. As one end of the spring is thus fastened to the pintle and the other end to the box-lug, the spring will be stretched torsionally when the lid is opened, and this torsional strain of the spring will cause the lid to close when the lid has been shifted sidewise sufficiently to withdraw the projection 12 from the notch 14.

The pintle is locked fast to turn with the lid by means of a lip 20, which engages the polygonal head 21 of the bolt. To hold the half-round end 18 of the pintle firmly in the

pintle-opening 16', which is circular and of the same diameter as the pintle, I provide a washer 22 with a plug 23, which fits in said opening alongside of the half-round end of the pintle. This plug projects above and secures the end of the spring to the pintle. To increase the expansion and torsion of the spring, the pintle may be turned by first removing the cotter-pin 24 and drawing the pintle outward until its head clears the lip 20, and after the spring has been adjusted to its proper tension the pintle is returned to its operative position and locked in place.

The invention is simple in construction and operation and embodies very few parts. The expansion and the torsion of the spring are both utilized with this invention, the expansion of the spring operating to draw the lid sidewise into its closed or open positions and the torsion of the spring being utilized to close the lid.

I claim and desire to secure by Letters Patent—

1. The combination of a car-axle box, a lid hinged to said box and movable sidewise thereon, and a spring operating by expansion to hold the lid in open or closed position and also operating by torsion to assist in closing the lid.

2. The combination of a car-axle box, a lid hinged to said box and movable sidewise thereon, there being interengaging parts on the lid and box, and an expansion-spring operating to hold the lid securely in closed or open position, said spring being connected at one end to the box and at its other end to the lid to be strained torsionally when the lid is opened so as to close the lid when released from open position.

3. The combination of a car-axle box, a lid hinged to said box and movable sidewise thereon, there being interengaging parts on the lid and box, an expansion and torsion spring having one end connected to the box and the other end to the lid to be strained torsionally when the lid is opened so as to close the lid when released from open position, and means for increasing the expansion and torsion of said spring.

4. The combination of a car-axle box, a lug thereon, a lid hinged to said lug and movable sidewise relative thereto, there being a stud on one end of said lug, and a spring bearing against said end of the lug and the lid, said spring having one end engaged with said stud and its other end connected to the lid.

5. The combination of a car-axle box, a lug thereon provided with notches at one end and a stud at the other end, a lid hinged to said lug and movable sidewise relative thereto, 5 there being a projection on said lid to enter said notches and hold the lid in open or closed position, and an expansion-spring arranged to bear against the lug and the lid, one end of said spring being engaged with said stud 10 and the other being locked to the lid.

6. The combination of a car-axle box, a lug on said box, a lid, a pintle pivotally connecting the lid to said lug, there being interengaging parts on the lid and lug, the end of 15 said pintle being reduced to a half-round form and projecting through a circular opening in the end of the lid, an expansion and torsion spring arranged on the pintle and bearing against said end of the lid and the adjacent 20 end of the lug, said spring having one end made fast to the half-round end of the pintle and its other end connected to the box-lug, and a plug in said circular opening to hold the half-round end of the pintle in place.

7. The combination of a car-axle box, a lug on said box, a lid, a pintle pivotally connecting the lid to said lug, there being interengaging parts on the lid and lug, the end of 25 said pintle being reduced to a half-round form and projecting through a circular opening in the end of the lid, an expansion and torsion spring arranged on the pintle and bearing

against said end of the lid and the adjacent end of the lug, said spring having one end bent over the half-round end of the pintle and 35 its other end connected to the box-lug, and a plug in said circular opening to hold the half-round end of the pintle in place and projecting above the end of the spring to secure the spring to the pintle. 40

8. The combination of a car-axle box, a lug thereon, a lid, a pintle pivotally connecting the lid to said lug, said pintle having a polygonal head, and said lid having a lip to engage said head and cause the pintle to swing 45 with the lid, the other end of said pintle being reduced to a half-round form and projecting through a circular opening in the opposite end of the lid, there being notches in one end of said box-lug and a projection on the lid 50 to enter said notches, an expansion and torsion spring on the pintle arranged to bear against the opposite end of the box-lug and the adjacent end of the lid, said spring having one end made fast to the half-round end 55 of the pintle and the other end connected to the box-lug, and a washer on the end of said pintle, said washer having a plug entering the pintle-opening alongside of the end of the pintle to secure the pintle in place.

GEORGE A. WOODMAN.

Witnesses:

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