

G. L. WAITT.
 HINGE FOR JOURNAL BOXES AND THE LIKE.
 APPLICATION FILED JAN. 19, 1918.

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Fig. 1

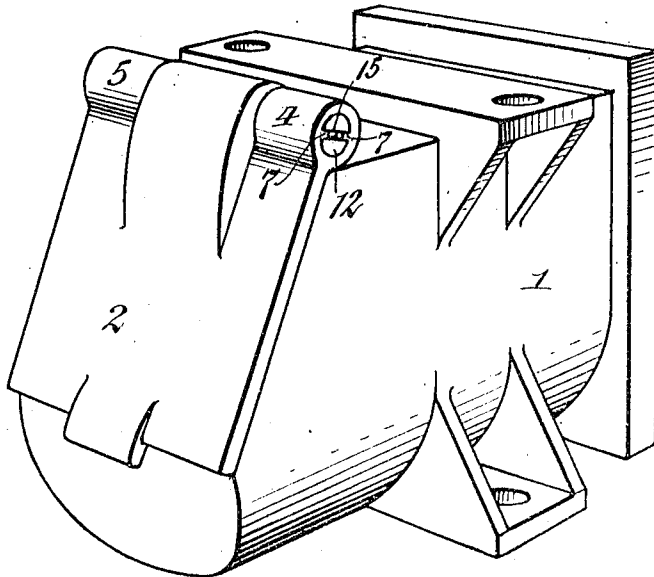


Fig. 2

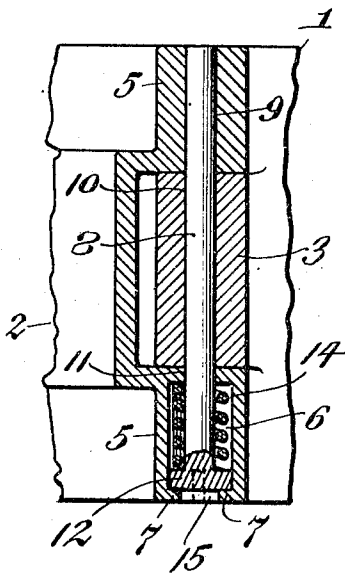


Fig. 3

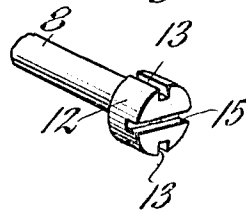
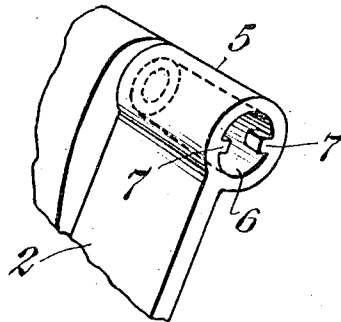


Fig. 4



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HINGE FOR JOURNAL-BOXES AND THE LIKE.

1,270,076.

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To all whom it may concern:

Be it known that I, GEORGE L. WAITT, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Hinges for Journal-Boxes and the like, of which the following is a specification.

This invention relates to a hinge which is more particularly designed for connecting the lid and body of a journal box, although the same may also be used for connecting other members one of which swings relatively to another.

It is the object of this invention to provide a hinge with means for locking the pintle against accidental displacement, which is simple in construction, inexpensive to manufacture, capable of being used in connection with all the standard types of journal boxes now installed on railway cars, and which can be easily applied to and removed from the journal boxes without requiring any special appliances for this purpose.

In the accompanying drawings:

Figure 1 is a perspective view of a journal box provided with my improved hinge, this being an example of one of the various uses for which my invention may be employed. Fig. 2 is a fragmentary longitudinal section of my improved hinge. Fig. 3 is a fragmentary perspective view of the pintle forming part of my improvement. Fig. 4 is a similar view of the lid constructed in accordance with my invention.

Similar characters of reference indicate corresponding parts throughout the several views.

Although my invention is applicable to a variety of purposes, in which two parts are pivotally connected so that one can swing relatively to another, the same is shown in the drawings applied to a journal box having a hollow body 1 and a vertically-swinging lid 2 which is pivotally connected at its upper edge with the top of the journal box so that the opening in the outer end of the body may be covered or uncovered when required.

In the standard journal boxes as now generally used in railway car construction, the body is provided at the front end of its top side with a single hinge eye or knuckle 3 and the upper or rear edge of the lid is provided with a pair of spaced hinge eyes or

knuckles 4, 5, which are adapted to straddle the single hinge-eye or knuckle of the box body and to be arranged axially in line therewith.

My improvements relate more particularly to the means whereby these hinge knuckles of the lid and box body are pivotally connected and in the preferred form of the same, as shown in the drawings, my invention is preferably constructed as follows:

One of the hinge knuckles of the lid, for instance, the knuckle 4 is provided with a socket 6 which extends inwardly from its outer end and is provided with one or more inwardly-projecting locking lugs 7, two of such lugs being preferably employed and arranged internally and on diametrically opposite sides of the outer part of the bore of said socket. 8 represents a hinge-pin or pintle which is arranged axially in corresponding openings 9, 10, 11, formed in the knuckle 5 of the lid, the knuckle 3 of the box-body and the eye 4 of the lid at the bottom of the socket thereof.

At its outer end this hinge pin or pintle is provided with a locking head 12 which is larger in diameter than the pin but sufficiently small to be able to enter the socket. On its diametrically opposite sides this locking head is provided with longitudinal passes or grooves 13 which are adapted to receive the locking lugs 7 upon inserting the pintle through the hinge knuckles and moving the locking head into the socket. After the pintle and its locking head have been moved inwardly to such an extent that the outer end of the head is arranged beyond the inner side of the locking lugs, then the pintle and its head are turned so as to bring the passes or longitudinal grooves 13 out of line with the locking lugs, thereby preventing the pintle from moving outwardly and holding the same in its operative position within the knuckles of the lid and box body, so that these members are pivotally connected and the pintle cannot be again removed from these knuckles until the same has been turned into a position in which the longitudinal grooves in its head again register with the locking lugs.

14 represents a spring, preferably of helical form, which surrounds the pintle within the socket and bears at its inner end against the bottom of the socket while its outer end bears against the rear side of the locking head of the pintle. During the inward

movement of the pintle and its head this spring is compressed and after turning the pintle so that the longitudinal grooves in its head are out of line with the locking lugs, the pressure of the spring holds this head firmly in engagement with these lugs.

In order to prevent rotation of the pintle and its head while the same are in their operative position and the longitudinal grooves of the head are out of line with the locking lugs, this head is provided on its outer end with depressed seats which are adapted to receive the locking lugs and thus positively interlock therewith and hold the pintle against rotation while in use. These locking seats are preferably formed by means of a transverse groove arranged diametrically at the outer end of the locking head in a manner resembling the nick in the head of a screw. This transverse groove is adapted to receive an ordinary screw driver for pushing the pintle and its head inwardly into the hinge knuckles and then turning the same by means of this screw driver until the opposite ends of the transverse groove are in line with the locking lugs, after which the withdrawal of the screw driver permits the locking head to engage opposite ends of the transverse groove with the locking lugs and thereby securely lock the hinge against dismemberment.

My improved locking hinge contains no delicate parts which are liable to get out of order, the same can be produced at low cost by the methods now commonly employed for this class of work, it is capable of use on any of the standard types of journal boxes now generally used in railway cars, and it is possible to quickly and readily remove a

broken lid and replace the same with a new one without employing any special tools or skilled help for this purpose.

I claim as my invention:

1. A hinge for pivotally connecting two members comprising cooperating hinge knuckles arranged on said members and having their axes in line and one of said knuckles being provided in its outer end with a socket and an inwardly projecting lug, a hinge pintle extending through said hinge knuckles and having a head which is arranged in said socket and has a longitudinal pass whereby the same can clear said lug for entering said socket and a seat on the outer end for engaging with the inner side of said lug, and a spring surrounding said hinge pintle and bearing at one end against the bottom of said socket and at its other end against said head.

2. A hinge for pivotally connecting two members comprising cooperating hinge knuckles arranged on said members and having their axes in line and one of said knuckles being provided in its outer end with a socket and an inwardly projecting lug, a hinge pintle extending through said hinge knuckles and having a head which is arranged in said socket and has a longitudinal groove in its side which receives said lug as the head is inserted in or removed from the socket, and a transverse notch in its outer end which receives said lug for holding the pintle against turning, and a spring arranged in said socket around the pintle and interposed between the bottom of said socket and the inner side of said head.

GEORGE L. WAITT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."