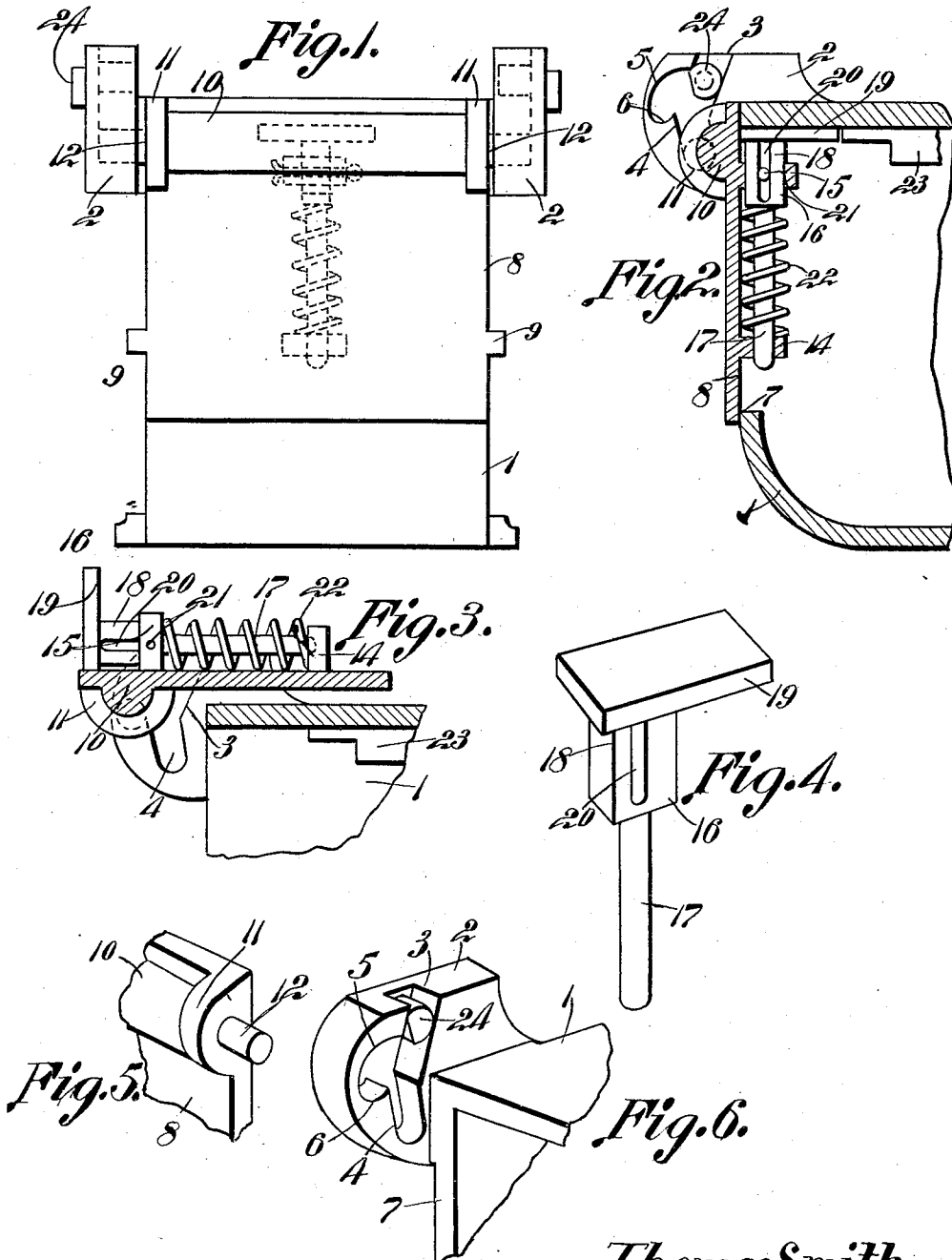


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JOURNAL BOX FOR CARS.
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Patented May 6, 1913.



Witnesses

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JOURNAL-BOX FOR CARS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS SMITH, a citizen of the United States, residing at San Luis Potosi, country of Mexico, have invented a new and useful Journal-Box for Cars, of which the following is a specification.

One object of the present invention is to provide a means for moving transversely, the lid of a journal box, so that the lid will be pressed against the journal box, thereby holding the lid dust tight against the box, and preventing a rattling of the lid when a car or other vehicle is in motion.

A further object of the invention is to provide a lid-retaining means of the type hereinbefore mentioned, which means will also be effective, for retaining against displacement, the wedge whereby the bearings in which the axle rotates, are held with respect to the box to which the lid is applied.

A further object of the invention is to provide a device of this type, the lid-holding means of which is so disposed that either the lid or the journal box, at will, may be planed off smoothly, thereby to effect a dust tight joint, when the lid is actuated to a closed position.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings,—Figure 1 shows the invention in front elevation; Fig. 2 is a vertical section; Fig. 3 is a vertical section; showing the lid swung into an open position; Fig. 4 is a detail perspective of the movable member which is carried by the lid, for the purpose of maintaining the lid closed, and for the purpose of holding the bearing-retaining wedge in place; Fig. 5 is a fragmental perspective of the lid; and Fig. 6 is a fragmental perspective of the box.

In the drawings, the numeral 1 denotes generally, a journal box, provided at its upper, outer edges, with upstanding lugs 2. In each of the lugs 2, and upon the inner face of each lug, a slot is formed, the same

consisting of an entering channel 3, and a receiving channel 4, the channels 3 and 4 being angularly disposed, and the channel 4 slanting toward the face of the journal box 1. At the angle defined by the channels 3 and 4, and opposite the apex of the said angle, a lateral pocket 5 is formed, having, at its lower edge, a depressed seat 6.

The opening in the journal box 1 is denoted generally by the numeral 7. This opening 7 may be disposed in any desired manner, the opening, in the present instance, although not necessarily, being vertically positioned. A lid, denoted generally by the numeral 8 is provided, the same constituting a closure for the opening 7. The lid 8 is equipped adjacent its lower edge, with laterally outstanding grips 9. Extended across the lid, 8, in the vicinity of the upper edge thereof, is an outstanding reinforcement 10, having at its ends ears 11 which project outwardly, at right angles to the plane of the lid 8. Projecting from the ears 11, parallel to the plane of the lid 8, are bearings 12.

Upon the inner face of the lid 8 are formed a pair of brackets or lugs, denoted, respectively, by the numerals 14 and 15. A movable member, denoted generally by the numeral 16, is mounted to slide in the brackets 14 and 15, parallel to the lid 8. The movable member includes a stem 17 which is slidably received within the bracket 14, and an enlarged head 18, which is slidably received within the bracket 15. The head 18 is equipped, terminally, with a rectangularly disposed foot 19. In the head 18 there is a slot 20, and through this slot 20 extends a pin 21 or other retaining member, the pin 21 being engaged with the bracket 15. Spring means is provided for thrusting the movable member longitudinally, so that the foot 19 will bear against the under face of the top of the journal box 1. The spring means may be of any desired form. In the present instance, the same consists of a resilient, helical element 22 bearing at one end against the bracket 14, and at its other end bearing against one end of the head 18.

When the parts are positioned as shown in Fig. 2, the spring 22 will thrust against the bracket 14, moving the lid 8 downwardly, and when the lid 8 moves downwardly, the bearing 12 will traverse the receiving channel 4 of the slot in the lug 2,

the lid 8 being moved transversely, so as to press tightly against the journal box 1, thereby effecting a dust-tight closure of the opening 7. The spring 22 will also exert a thrust against the head 18, causing the foot 19 to bear against the under face of the top of the journal box 1, as must be necessary, if the lid 8 is to be moved downwardly by the action of the spring 22, and if the lid is to be moved transversely, through the co-operation between the bearing 12 and the receiving channel 4.

While the lid 8 is being swung toward a horizontal position, the spring 22 will be put under compression, the spring thrusting against the lug 14 and causing the lid, when the lower, free edge thereof is elevated, to move outwardly, due to the thrust of the part 19 against the top of the box 1, whereupon the bearing 12 will move into the pocket 5. The lid, thereupon, may be swung over, upon top of the journal box 1, as clearly indicated in Fig. 3.

A means is provided for preventing the bearing 12 from moving out of the entering portion 3 of the slot, this means preferably taking the form of a pin 24, inserted through the lug 2, and entering the portion 3 of the slot, the element 24 obviously preventing the bearing 12 from moving out of the portion 3 of the slot.

From the foregoing it will be seen that when the lid is swung into a closed position, as shown in Fig. 2, the lid, by the action of the spring 22, and through the coöperation of the elements 12 and 4, will be moved transversely, to effect a dust-tight closure of the opening 7. It is to be noted, referring particularly to Fig. 2, that the outer face of the box 1 is unencumbered, the construction being such that the outer face of the box may be planed off, to effect a dust-tight union with the lid 8.

The numeral 23 indicates a wedge which is employed for retaining the bearings of the axle which rotates in the box. This wedge 23, hereinafter referred to as the bearing holder, is a common and well known element in car equipment, and a specific delineation of the bearings which the wedge 23 retains, is unnecessary. It is to be noted that when the parts are positioned as shown in Fig. 2, the foot 19 will be positioned in front of the wedge 23, thus preventing an accidental displacement of the wedge, and a consequent release of the bearings of the axle which rotates in the box 1. When the lid has been swung into an open position, the bearings 12 registering in the pockets 5, the wedge 23 may be manipulated readily, for the purpose of rebrassing the journal. Obviously, the spring 22 serves to maintain the foot 19 normally interposed in the path of the wedge 23, thereby to prevent a displacement of the wedge. It is to be noted

that the axis of the bearings 12 is disposed below the foot 19, and consequently, should the wedge 23 exert an outward pressure against the foot 19, the lower, free edge of the lid 8 will be swung inwardly, thereby to prevent an accidental opening of the lid 8, by means of the wedge 23. Conversely, when the lid 8 is in a closed position, as shown in Fig. 2, the foot 19 will be held in the path of the wedge 23, thereby preventing a displacement of the wedge. The ears 11 upon the lid 8, being received between the lugs 2, serve to aline the bearings 12 with the entering channels 3 of the slots in the lugs 2.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a box; a bearing holder in the box; a lid for the box; a movable member carried by the lid; and resilient means operatively connected with the movable member to cause the same to engage the box when the lid is closed, to dispose the member in the path of the bearing holder, when the lid is closed, whereby to prevent a displacement of the bearing holder.

2. In a device of the class described, a box; a bearing holder in the box; a lid for the box; a pivotal connection between the lid and the box, comprising coöperating parts effective to move the lid transversely against the box when the lid is moved longitudinally; a member movable upon the lid; and resilient means connected with the lid and with the movable member, to move the lid longitudinally, and to dispose the movable member in the path of the bearing holder, when the lid is closed, thereby to prevent a displacement of the bearing holder.

3. In a device of the class described, a box having a slot, the outer extremity of which is open, the inner extremity of which is inclined toward the face of the box, the slot being provided, intermediate its ends, with a lateral pocket; a lid having a projection insertible into the outer extremity of the slot and adapted to register in the inner extremity of the slot when the lid is closed, the projection being seated in the pocket when the lid is open; a spring-actuated member carried by the lid and engaging the box, to hold the projection in the inner extremity of the slot when the lid is closed, the spring-actuated member moving the lid transversely, away from the box when the lid is open, thereby to cause the projection to enter the pocket; and a removable detent protruding into the outer extremity of the slot, and engageable by the projection, to prevent a displacement of the bearing from the slot.

4. In a device of the class described, a box provided with a slot including an open,

entering channel and an angularly disposed receiving channel, there being a lateral pocket opposite the apex of the channels; a lid having a projection adapted to be received in the entering channel, and to fit within the receiving channel when the lid is closed, the projection being receivable by the pocket, when the lid is open, there being spaced brackets secured to the rear face of the lid; a member slidable in the brackets; a spring engaging the slidable member and one bracket, to cause the slidable member to engage with the box, thereby to cause the projection to move into the receiving channel, when the lid is closed, and to move into the pocket, when the lid is open; and inter-engaging elements upon the movable member and upon one bracket, to prevent a displacement of the movable member from the bearings, when the lid is open.

5. In a device of the class described, a box having a slot, the inner extremity of which is inclined toward the face of the box, the slot being provided intermediate its ends with a lateral pocket; a lid having a projection seated in the extremity of the slot, when the lid is closed, and seated in the pocket when the lid is opened; a spring-actuated member carried by the lid and engageable by the box, to hold the projection in the extremity of the slot when the lid is closed, the spring-actuated member moving the lid transversely, when the lid is opened, thereby to cause the projection to enter the pocket; and a bearing holder in the box, the spring-actuating member being interposed in the path of the bearing-holder, when the

lid is closed, thereby to prevent a displacement of the bearing-holder.

6. In a device of the class described, a box having a slot, the outer extremity of which is open, the inner extremity of which is inclined toward the face of the box, the slot being provided intermediate its ends with a lateral pocket; a lid having a projection adapted to be received into the outer extremity of the slot, and adapted to be seated in the inner extremity of the slot, when the lid is closed, the projection being seated in the pocket when the lid is open; a spring-actuated member carried by the lid and engaging the box to hold the projection in the inner extremity of the slot, when the lid is closed, the spring-actuated member moving the lid transversely, away from the box, when the lid is opened, thereby to cause the projection to enter the pocket; a removable detent protruding into the outer extremity of the slot, and engageable by the projection, to prevent the complete removal of the projection from the slot; a bearing holder in the box, the spring actuating member being interposed in the path of the bearing holder, when the lid is closed, thereby to prevent a displacement of the bearing holder.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

THOMAS SMITH.

Witnesses:

A. R. WHITFIELD,
A. S. SHARPTON.