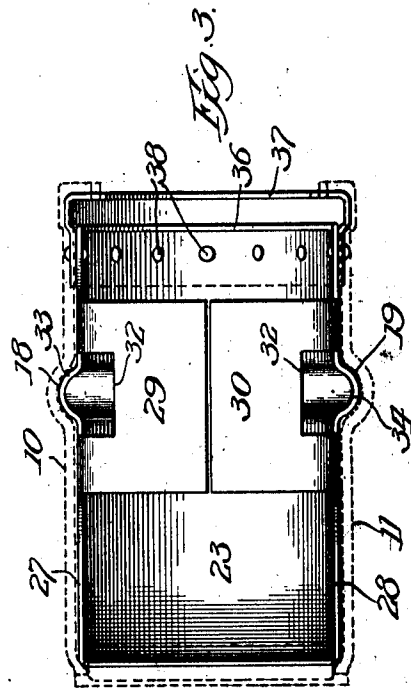
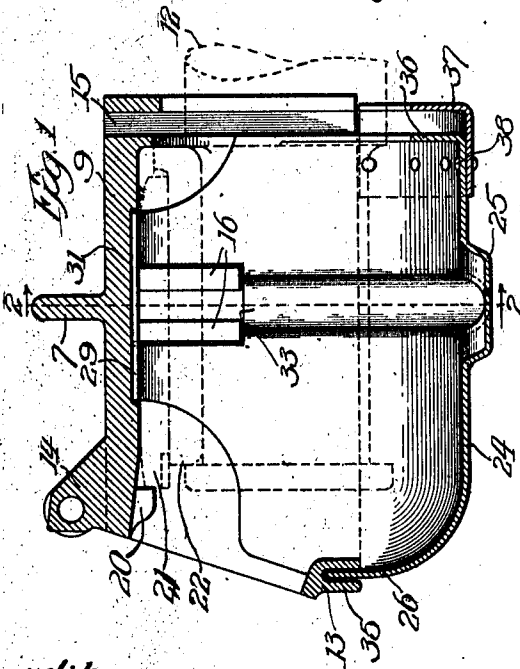
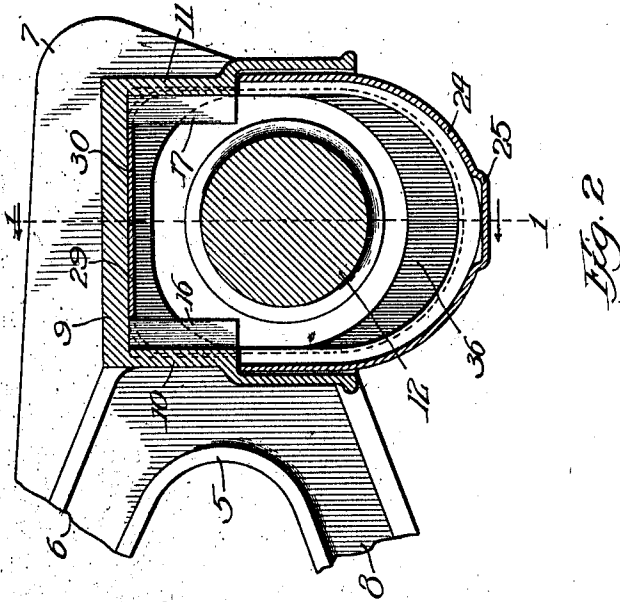


G. G. FLOYD.
CAR TRUCK JOURNAL BOX AND OIL CELLAR.
APPLICATION FILED MAR. 4, 1911.

1,026,979.

Patented May 21, 1912.



Witnesses:
Geo. C. Brown
Chas. J. Wilson

Inventor.
George G. Floyd
By Linthicum Bell & Fuller
Attys

UNITED STATES PATENT OFFICE.

GEORGE G. FLOYD, OF GRANITE CITY, ILLINOIS, ASSIGNOR TO AMERICAN STEEL
FOUNDRIES, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

CAR-TRUCK JOURNAL-BOX AND OIL-CELLAR.

1,026,979.

Specification of Letters Patent.

Patented May 21, 1912.

Application filed March 4, 1911. Serial No. 612,424.

To all whom it may concern:

Be it known that I, GEORGE G. FLOYD, a citizen of the United States, residing at Granite City, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Car-Truck Journal-Boxes and Oil-Cellars, of which the following is a specification.

My present invention relates to car-truck journal boxes and oil cellars, and one of its objects is to so shape and construct the side-frame as to form the upper portion of a journal box, the lower portion of the box being made separate and independent from the upper portion and adapted to cooperate with the portion formed on the side-frame so as to constitute the complete journal box.

I am aware that others have suggested many forms of connection between the journal box and side-frame, these including side-frames having journal boxes formed integral therewith, side-frames having portions of the box formed integral therewith, together with many modifications of the constructions just described.

It is well understood that in practice the wheels of a car truck must be removed at comparatively frequent intervals for returning or substitution, and for that reason the object sought in each instance has been to so construct a truck that the removal may be quickly and easily accomplished, and, at the same time, provide a construction which may not become loose through loss of bolts or nuts. This is attained in an integral construction, with the drawback that the breakage of any part of the journal box necessitates the discarding of the entire side-frame, while in the divided journal box construction it becomes necessary to employ bolts for holding the associated parts together. Therefore, when the nuts become loose, even though they are not lost, the connection between the associated parts will admit sand and dust, which, entering the journal, causes a hot box with consequent delay and loss.

One of the objects of my invention is, therefore, to provide a side-frame and journal box construction wherein the substantial parts of the box, such as the lugs and top wall, are formed as a part of the side-frame while the oil cellar is separate and is held in operative position solely by the

weight transmitted by the side-frame to the wheels, and without the use of bolts.

A further object is to so construct the parts that there shall be a tight joint maintained at all times. In my novel construction the parts may be disassociated by merely elevating the side-frame to a height equal to the height of the lugs. The wheels may then be rolled out as desired and the journal box and parts removed.

This invention will be best understood by reference to the following description when taken in connection with the accompanying drawings illustrating one preferred embodiment thereof.

On the drawings—Figure 1 is a longitudinal vertical sectional view through the center of the box and substantially on the line 1—1 of Fig. 2. Fig. 2 is a transverse sectional view through the box and showing a segment of the side-frame, taken substantially on the line 2—2 of Fig. 1; and Fig. 3 is a detail plan view of the pressed metal box element, the portion of the box integral with the side-frame being shown in dotted lines.

Referring to the drawings it will be noted that the cast metal side-frame 5 has a lower tension bar or member 8 and a top compression member 6 provided near its ends with a centrally disposed rib 7 extending longitudinally of the frame. The frame has also at each end a flat horizontal plate portion 9 adapted to form the top of the journal box and downwardly extending side walls 10 and 11 which, when the parts are assembled, project nearly to the lower side of the axle 12 as shown in Fig. 1. At their outer ends the side walls are connected, near their free edges, by a web or wall 13 which, together with the ends of the side wall and the top of the box, form a seat for the journal box cover which may be pivotally mounted in the usual manner upon a lug 14 projecting upwardly from the top of the box. The rear end of the box portion is preferably constructed to provide a slot 15 for the reception of the usual dust guard. A pair of holding lugs or fingers 16 is cast integrally with the inner side wall 10 and preferably also with the top 9, and a similar pair of lugs 17 is cast integrally with the outer side wall 11 and with the top 9, as shown in Fig. 2. The lugs of each pair are prefer-

ably spaced apart and arranged midway between the front and back of the box to extend downwardly about half the depth of the walls. If preferred, however, a single
 5 lug may be employed in lieu of the pair upon each wall. Beneath these lugs the walls are preferably curved outwardly to form the grooves 18 and 19 adapted for the reception of similarly shaped ribs on the
 10 lower portion of the journal box as will be subsequently explained. One or more lugs 20 depend downwardly from the top 9 near the outer end thereof in position to engage the outer end of the wedge 21 which is positioned above the brass 22 in the usual manner,
 15 said lug serving to prevent the wedge from slipping out of the box and also serving to prevent the box from sliding too far onto the axle.

20 The lower portion of the journal box, which is made independently from the upper portion, I have termed the box element, and this element is designated generally by the reference character 23. This
 25 box element is preferably pressed from an integral sheet of metal so as to form a bottom 24 having a depression 25, a shallow front end wall 26 and side walls 27 and 28. The front and rear corners of the side
 30 walls are removed, as will be evident from Figs. 1 and 2, leaving relatively narrow portions near the center of the box which are bent inwardly toward each other at 29 and 30 to form a partial top adapted to rest
 35 upon the wedge 21 and prevent the box element from dropping away from the axle. The inner face of the top portion of the box is preferably recessed at 31 to permit the top 29, 30 of the box element to rest therein so
 40 that the top 9 may be supported throughout its length upon the wedge 21 thereby insuring a broad, stable supporting surface for the side-frame.

45 The upper portion of the side walls 27 and 28 and the adjacent portion of the top members 29 and 30 are preferably cut away to form recesses 32 adapted to receive the pairs of holding lugs or fingers 16 and 17 of the upper box portion. These lugs which are also
 50 adapted to engage in recesses in the sides of the wedge and brass 21 and 22 serve to prevent longitudinal displacement of the box element, the brass and the wedge.

55 The sides of the box element beneath the lug receiving recesses are bent outwardly to form the ribs 33 and 34 adapted to fit in the grooves 18 and 19 in the upper box portion to assist in maintaining the element in proper longitudinal relation to the side-frame. A groove 35 is provided on the under side of the web or wall 13 into which the free edge of the front wall 26 of the box element fits, forming a seal when the box
 60 portions are assembled in operative relation. The rear end of the box element is

provided with an upturned flange 36 which, together with the bottom, side walls and front wall, constitutes the oil cellar beneath the axle. A separate piece of metal 37 having a flange similar to the flange 36 is secured by rivets 38 or other preferred fastening means to the rear end of the box element so that the flanges 36 and 37 are spaced apart to form a pocket adapted for the reception of the usual dust guard which is inserted at the top of the box into the guideway or groove 15.

8 In assembling the parts of my improved journal box and oil cellar, the box element is first slipped over the end of the axle and the brasses and wedge are placed in position upon the top of the axle so as to support the box element. The side-frame is then lowered over the box element into the position shown in Fig. 1. When the box portions are assembled as shown, the box element is prevented from movement relatively to the side-frame, by the engagement of the front wall 26 in the groove 35, by the groove and rib connection between the sides of the box element and the side walls of the upper box portion and finally by the lugs 16 and 17 located in the recesses in the top of the box element. It will be apparent that the two portions of the box are held rigidly together when in operative relation without the employment of bolts, clasps or other fastening means and that the construction is light, strong and durable. Whenever it may become necessary to remove the box or an axle for repairs or for any other reason, the parts may be readily disassembled by simply lifting the side-frame carrying the upper portion of the box off from the lower portion. The box element and the wedge and brasses may then be readily slipped off over the end of the axle.

Although I have not shown a dust guard in the recess 15 provided therefor, it will be understood that a divided guard is contemplated—that is, one which is divided at substantially the transverse axis of the axle.

While I have shown and described a preferred embodiment of this invention it will be obvious that various changes in the construction and arrangement of the various parts may be resorted to without departing from the spirit of the invention or sacrificing any of the material advantages thereof.

I claim:

1. The combination of a car-truck side-frame shaped to form the upper portion of a journal box and having one or more lugs integral therewith, and an element adapted to form the lower portion of a journal box engaged with said lugs and retained in position by the weight of said side-frame, substantially as described.

2. The combination of a car-truck side-frame shaped to form the upper portion of a

journal box, the side walls of said upper portion being provided with one or more grooves, and an element adapted to form the lower portion of a journal box, said element being provided with ribs adapted to fit in the grooves in said upper portion whereby relative longitudinal movement between the portions of the journal box is prevented, substantially as described.

3. The combination of a car-truck side-frame shaped to form the upper portion of a journal box, said portion being equipped with one or more lugs and having its side walls provided with grooves, and an element adapted to form the lower portion of a journal box, the side walls of said element being provided with ribs adapted to fit in said grooves, and the upper portion of said element being shaped to receive said lugs, substantially as described.

4. The combination of a car-truck side-frame adapted to form the upper portion of a journal box and providing a journal box cover-seat having a groove extending across the lower wall thereof, and an element adapted to form the lower portion of a journal box, said element being fitted into said upper portion with the upper end of its front wall seated in said groove in the journal box cover-seat, substantially as described.

5. The combination of a car-truck side-frame having one or more lugs integral therewith and shaped to form the upper portion of a journal box and to provide a seat for a journal box cover, and an element adapted to form the lower portion of a journal box, said element being shaped to receive said lugs on the side-frame and to have its front wall fit into a groove in the wall of said journal box cover-seat, substantially as described.

6. The combination of a car-truck side-frame shaped to form the upper portion of a journal box and provide a seat for a journal box cover, the lower wall of said seat having a groove extending transversely of the box, the side walls of said upper portion having vertically extending grooves, and an element adapted to form the lower portion of a journal box, the side walls of said element being provided with vertically extending ribs adapted to fit in said grooves in the side walls of said upper portion, the free edge of the front wall being adapted to fit in said transverse groove in the wall of said journal box cover-seat, substantially as described.

7. The combination of a car-truck side-frame shaped to form the upper portion of a journal box, said portion having vertically

disposed grooves on its side walls, a transversely disposed groove on its front wall and lugs formed integrally with the top and side walls thereof, and an element adapted to form the lower portion of a journal box, the front wall of said element being disposed in said transverse groove, the side walls of the element being provided with ribs adapted to fit in the grooves in the side walls of said upper portion, and the top of said element being shaped to receive said integral lugs whereby relative longitudinal movement of said portions is prevented, substantially as described.

8. An oil cellar composed of bottom, end and side walls, said side walls having strips of metal projecting therefrom, said strips forming attaching lugs, substantially as described.

9. A journal box element stamped from a piece of metal to form a bottom, end, side walls and a top, said top being recessed for the reception of the holding lugs of a side-frame, substantially as described.

10. In a car truck, the combination of a side-frame having journal lugs cast as a part thereof, a journal wedge, and an oil cellar fitted to said side-frame and having a portion extending above and adapted to be clamped by the wedge, substantially as described.

11. In a car truck, the combination of a side-frame having journal lugs and a journal box top cast as a part thereof, a journal wedge, and an oil cellar fitted to said side-frame and having a portion extending above and adapted to be clamped by the wedge, substantially as described.

12. In a car truck, the combination of a side-frame having journal lugs and a journal box top cast as a part thereof, car wheels mounted on an axle, and an oil cellar fitted to said side-frame and adapted to be held in operative relation solely by the weight transmitted from the side-frame to the said car axle, substantially as described.

13. A car truck side frame provided with a divided journal box composed of upper and lower sections, the upper section being formed integral with the side frame and the lower section being provided with opposite approximately L-shaped arms extending into the upper section and arranged to project over the journal wedge to form a support for the lower section.

GEORGE G. FLOYD.

Witnesses:

HENRY M. HUXLEY,
IRA J. WILSON.