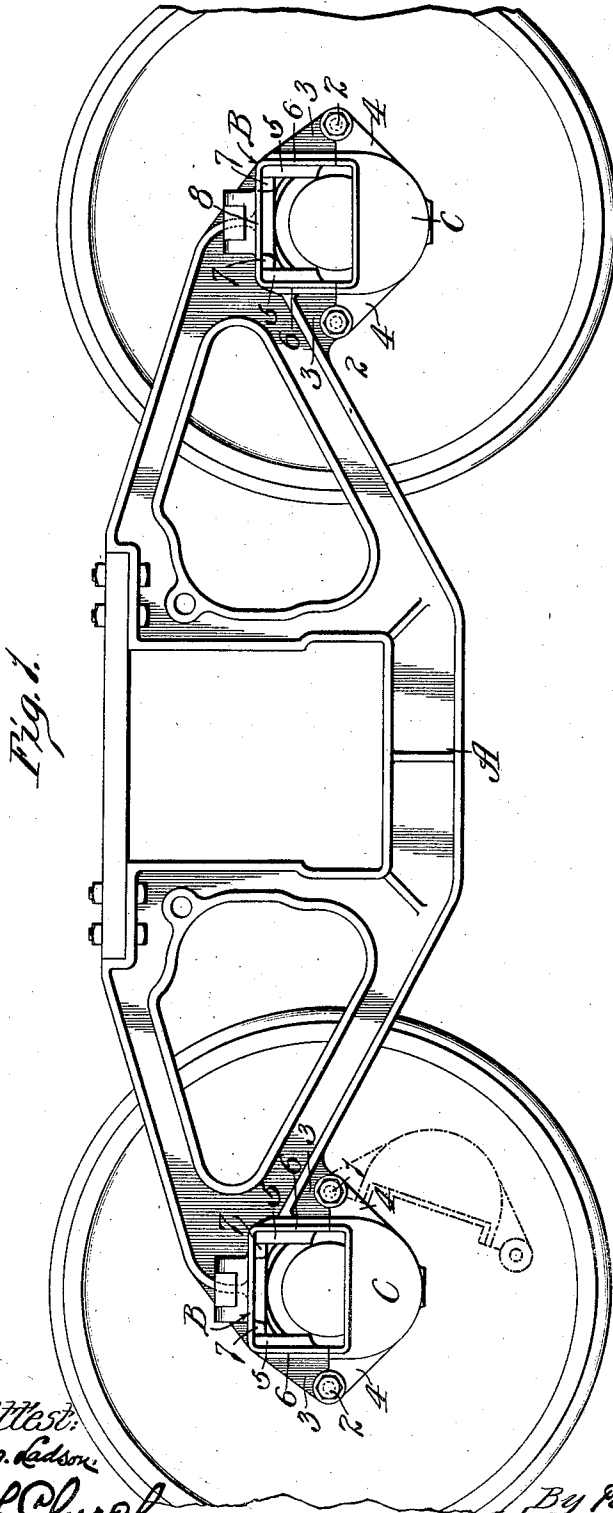


H. E. DOERR.
CAR TRUCK SIDE FRAME.
APPLICATION FILED AUG. 21, 1911.

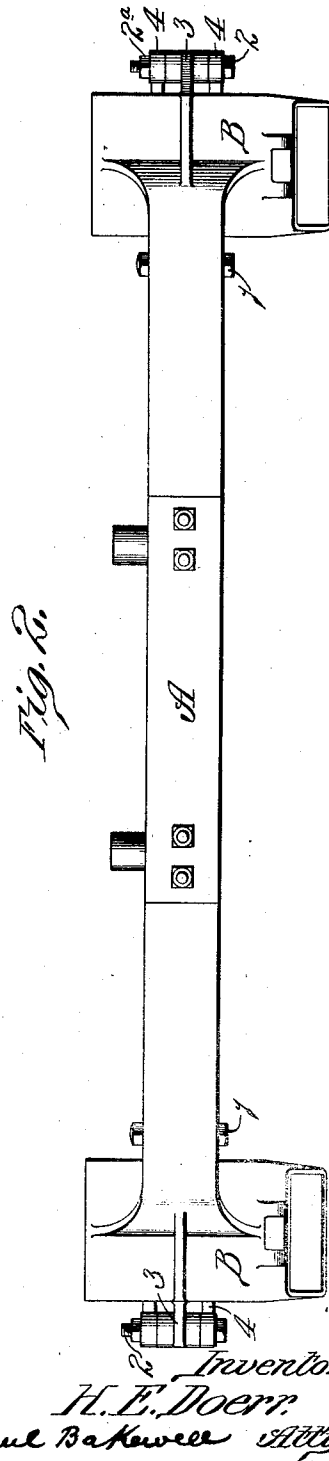
1,010,737.

Patented Dec. 5, 1911.

2 SHEETS—SHEET 1.



Attest:
Geo. Ladson
W. L. Churel



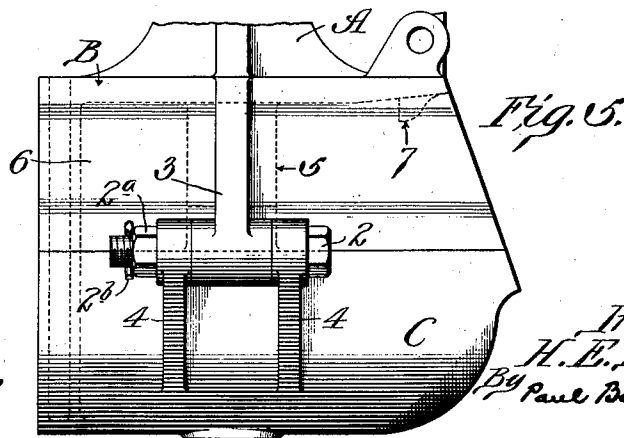
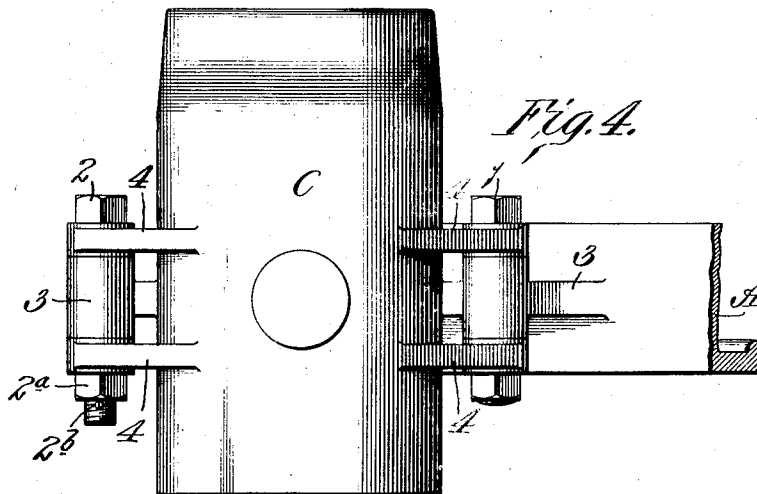
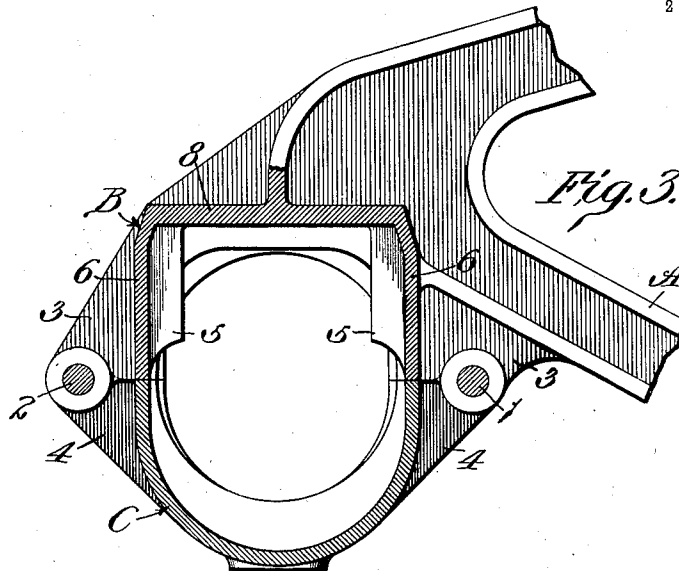
Inventor,
H. E. Doerr.
By Paul Bakewell Atty.

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2 SHEETS—SHEET 2.



Attest:
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Inventor,
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By Paul Baker
Atty.

UNITED STATES PATENT OFFICE.

HARRY E. DOERR, OF ST. LOUIS, MISSOURI, ASSIGNOR TO CHARLES L. GILBERT, OF ST. LOUIS, MISSOURI.

CAR-TRUCK SIDE FRAME.

1,010,737.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed August 21, 1911. Serial No. 645,083.

To all whom it may concern:

Be it known that I, HARRY E. DOERR, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Car-Truck Side Frames, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

10 This invention relates to cast metal side frames for car trucks, and particularly to side frames of the type in which the journal boxes comprise a rigid portion formed integral with the side frame and a movable portion that can be opened or moved into an inoperative position so as to permit the wheel axles to be removed without disconnecting the side frames from the other parts of the truck. The side frames of this type which have heretofore been used were so designed that it was necessary to machine the meeting faces of the rigid and movable portions of the journal boxes in order to produce a tight joint between said parts. The cost of machining the meeting faces of the rigid and movable portions of the journal boxes adds considerable to the cost of manufacturing the side frame, and another objectionable feature of the prior side frames of this type was the complicated design of the rigid and movable portions of the journal boxes.

25 The main object of my invention is to provide an inexpensive cast metal side frame having divided journal boxes which are so constructed that it is not necessary to machine the meeting faces of the rigid and movable portions of the journal boxes. And another object is to provide a side frame of the character just mentioned in which all of the lugs or stops on the inside of each journal box that cooperate with the journal bearing, are formed integral with the rigid portion of the box, the movable portion of the box being merely used for containing the waste and oil used to lubricate the bearing.

35 Other objects and desirable features of my invention will be hereinafter pointed out.

40 Figure 1 of the drawings is a side elevational view of a side frame constructed in accordance with my invention; Fig. 2 is a top plan view of the side frame; Fig. 3 is an enlarged side elevational view of a por-

tion of the side frame, showing the journal box in vertical section; Fig. 4 is an enlarged bottom plan view of the journal box; and Fig. 5 is a side elevational view of the journal box.

60 Referring to the drawings which illustrate the preferred form of my invention, A designates a cast metal side frame of any preferred design which is provided with journal boxes constructed in accordance with my invention. Each of said journal boxes consists of a rigid upper portion B that is formed integral with the side frame, and a movable lower portion C which can be opened or moved into an inoperative position whenever it is desired to remove the wheel axles. The rigid portion B of the box forms the upper part of the box and the movable portion C the lower part of the box, the division line between said parts being at approximately the center of the box so that the lower portion C will form the lower part of the door opening at the front end of the box which is normally closed by a door that is hinged to a lug on the upper portion B of the box. The meeting faces of said portions are preferably straight and smooth and said portions are connected together by means of rivets or bolts 1 and 2 which pass through perforated ears 3 on the rigid portion B and through perforated ears 4 on the movable portion C, as shown clearly in Figs. 3, 4 and 5. The bolt 1 which pivotally connects the inner end of the movable portion C of the box to the rigid portion B, is preferably upset so as to form a permanent pintle or pivot for the inner end of the movable portion C, and the other bolt 2 which connects the outer end of the movable portion C of the box to the rigid portion B, is adapted to be removed so as to permit said movable portion C to swing downwardly, as shown in broken lines in Fig. 1, the nut 2^a on said bolt being locked in position by means of a cotter-key 2^b, as shown in Fig. 4. The side lugs or stops 5 on the inside of the box which cooperate with the usual lugs on the sides of the journal bearings, not shown, are formed integral with the two side walls 6 of the rigid portion B of the box, and the top lug or stop 7 which cooperates with the wedge, not shown, which holds the journal bearing in position, is formed integral with the top 8 of the rigid portion B of the box. The

movable portion C which constitutes the bottom of the box, conforms to the general shape of the standard M. B. C. box and is used merely for holding the waste and oil that is used to lubricate the bearing.

In a side frame of the construction above described no machining of the meeting faces of the rigid and movable portions of each journal box is necessary, and furthermore, the boxes are exceedingly strong because the two side lugs or stops 5 and top lug or stop 7 on the inner side of each box which cooperate with the journal bearing and the wedge, respectively, are formed integral with a one-piece member which is cast integral with the side frame, namely, the rigid portion B of the box, which consists of two side walls 6 and a top wall 8 that are integrally connected together. The elimination of the machine work on the journal boxes not only greatly reduces the cost of manufacturing the side frame, but such a side frame is stronger and more serviceable than the side frames of this type which have heretofore been in use because the movable portions of the boxes are connected to the rigid portions in such a manner that there is no tendency for them to work loose or become detached accidentally.

While I have herein shown the movable portion C of each box as consisting of a casting I do not wish it to be understood that my invention is limited to such a construction for, if desired, said movable portion C could be formed from pressed metal as it merely serves as a housing for the waste and oil and is not subjected to any excessive strains or shocks when the side frame is in service.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A car truck side frame provided with a divided journal box having a door opening formed in the front end of same, the upper portion of the box being formed integral with the side frame and comprising two oppositely disposed side walls which receive all of the side shocks to which the journal bearing is subjected, a pivotally mounted member forming the lower portion of the box and also the lower part of said door opening, and a pair of side stops on the side

walls of the upper portion of the box which cooperate with the journal bearing.

2. A car truck side frame provided with a journal box that is divided at approximately its center and which consists of an upper portion formed integral with the side frame and a pivotally mounted lower portion whose upper edge is straight and butts against a straight surface on the lower edge of the upper portion of the box, a door opening at the front end of the box formed in the upper and lower portions of the box, and a pair of side stops and a top stop on the upper portion of the box which cooperate with the journal bearing and with the wedge respectively.

3. A truck side frame having a journal box whose upper portion is cast integral with the side frame and provided with a pair of lugs which cooperate with the journal bearing, a lower portion pivotally connected at one side to said upper portion and provided with a plain upper edge which butts against the lower edge of said upper portion, and a removable fastening device for retaining the lower portion of the box in position, the box being provided at its front end with a door opening which is formed partly in the lower portion of the box and partly in the upper portion of the box.

4. A truck side frame provided with a divided journal box which consists of an upper portion cast integral with the side frame and designed in such a manner that it receives all of the side shocks and end thrusts to which the journal bearing is subjected, a swinging lower portion, cooperating lugs on said upper and lower portion, a pintle passing through one set of lugs for pivotally connecting the lower portion of the box to the upper portion, a removable fastening device passing through the other set of lugs, and a door opening at the front end of the box formed partly in said upper portion and in said lower portion.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

HARRY E. DOERR.

Witnesses:

SHERWOOD S. KNIGHT,
WM. G. BRIDGMAN.