

H. HENRICKSEN.
LOCOMOTIVE DRIVING BOX.
APPLICATION FILED MAY 17, 1911.

1,063,683.

Patented June 3, 1913.

2 SHEETS-SHEET 1.

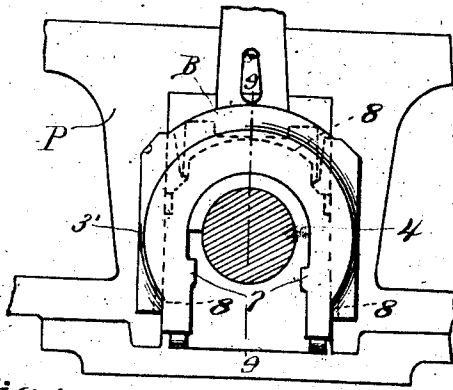


Fig. 1.

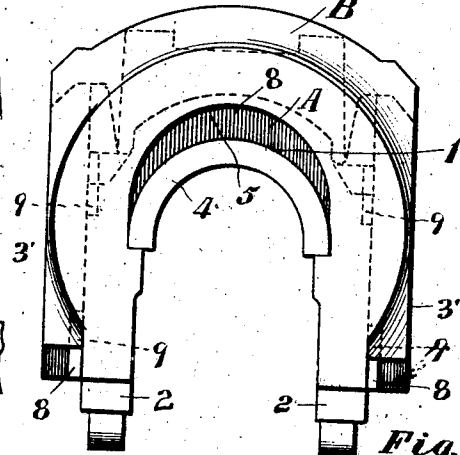


Fig. 2.

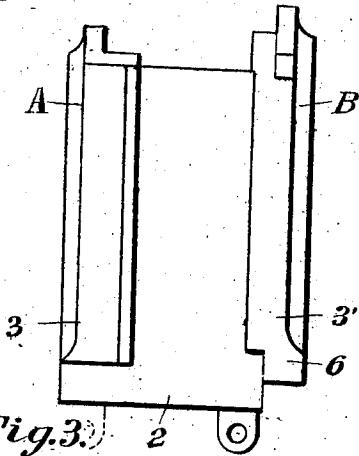


Fig. 3.

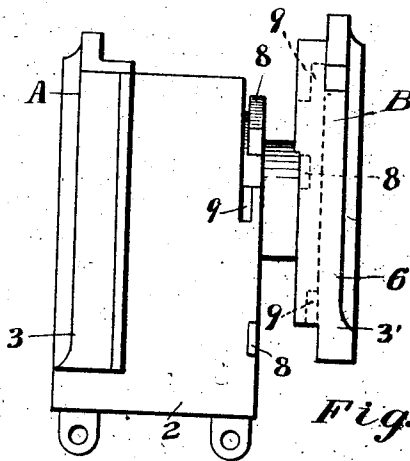


Fig. 4.

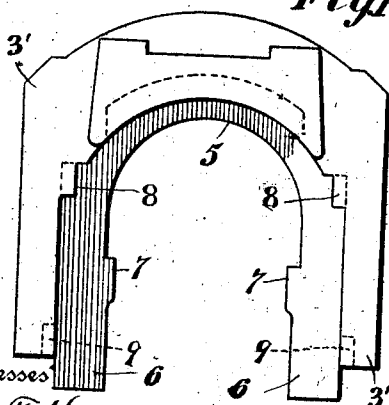


Fig. 10.

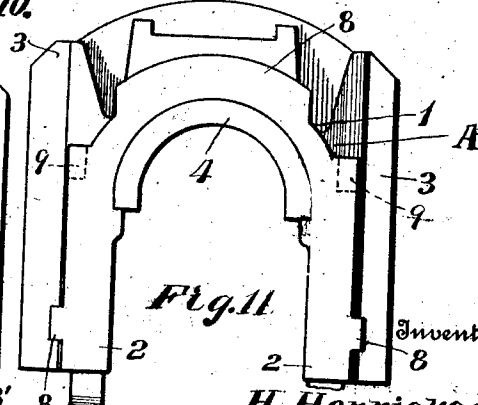


Fig. 11.

Witnesses

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2 SHEETS—SHEET 2.

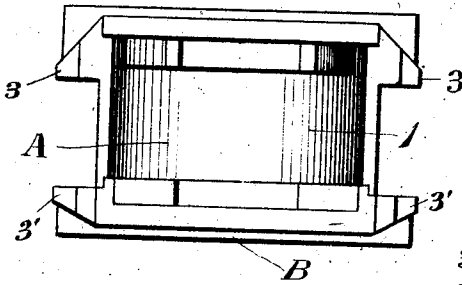


Fig. 6.

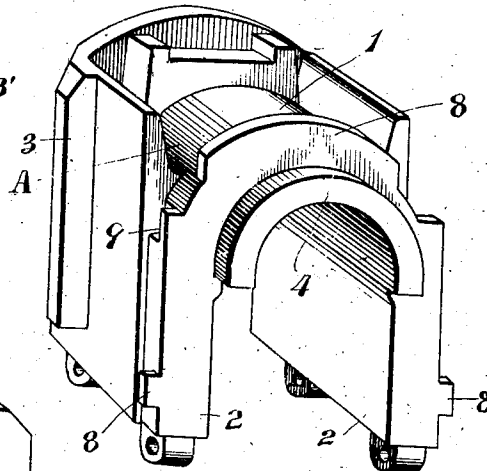


Fig. 7.

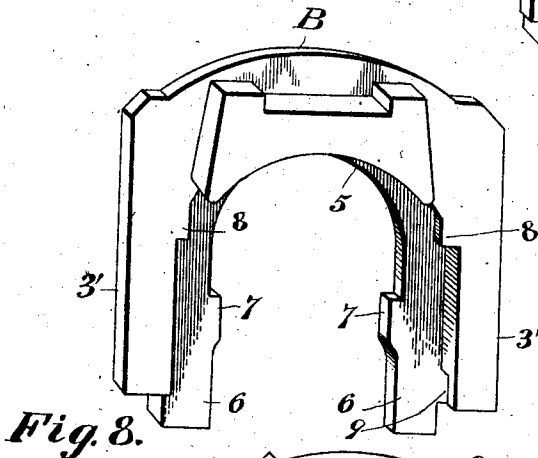


Fig. 8.

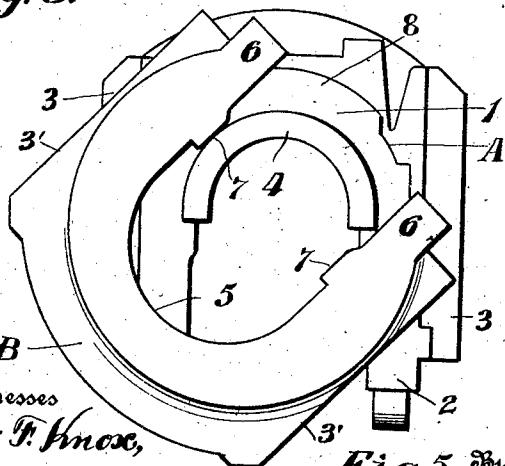


Fig. 9.

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UNITED STATES PATENT OFFICE.

HARRY HENRICKSEN, OF ERWIN, TENNESSEE.

LOCOMOTIVE DRIVING-BOX.

1,063,683.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed May 17, 1911. Serial No. 627,871.

To all whom it may concern:

Be it known that I, HARRY HENRICKSEN, a citizen of the United States, residing at Erwin, in the county of Unicoi and State of Tennessee, have invented new and useful Improvements in Locomotive Driving-Boxes, of which the following is a specification.

This invention relates to driving boxes for locomotives, engine trucks and the like, and it has for its object to provide an improved construction whereby necessary repairs and adjustments may be made without necessity of removing the wheels, side rods, shoes, wedges and other parts, thereby greatly simplifying and cheapening the operation of renewing crown brasses, hub liners and the like.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawings,—Figure 1 is a side view of a driving box constructed in accordance with the invention. Fig. 2 is a side view showing the outer plate or member of the box raised preparatory to removing the same. Fig. 3 is an end view showing the outer plate or member raised, as in Fig. 2. Fig. 4 is a similar view showing the body of the box displaced inwardly with reference to the outer plate or member. Fig. 5 is a front view showing the outer plate reversed preparatory to dropping it from the axle. Fig. 6 is a top plan view showing the parts assembled. Fig. 7 is a perspective view of the body or main portion of the box, the outer plate or member having been detached. Fig. 8 is a perspective view of the outer plate or member, detached and reversed to show the construction of the rear face thereof. Fig. 9 is a vertical sectional view taken on the line 9—9 in Fig. 1.

Fig. 10 is a rear view of the facing plate, detached. Fig. 11 is a front view of the box after the removal of the facing plate.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved driving box is composed of two parts, namely, a body portion A and a face plate B which is detachably connected therewith. Said driving box is mounted or supported in the customary manner on the pedestal of the truck frame, which is indicated at P in Fig. 1 of the drawings. The body portion in its essential details resembles driving boxes of ordinary construction comprising an arch 1 and legs or side members 2, 2, the latter having flanges 3 for the purpose of mounting the box in position in the usual manner. The arch 1 accommodates the crown brass 4 which projects forwardly of the face of the body portion and which in the present instance has been illustrated as being permanently embedded in the body portion, it being, however, understood that a removable brass may be used when desired.

The facing plate B is of inverted U-shape, as shown, and it comprises an arch 5 and legs 6, 6, said arch being of suitable dimensions to accommodate the projecting portion of the brass 4, and the entire U-shaped plate being calculated to straddle the axle, not shown, which in practice is journaled in the box. The legs 6 are provided adjacent to their lower ends with inwardly extending offsets 7 forming shoulders that are adapted to engage the projecting portion of the brass 4, thereby limiting the movement of the facing plate when the latter is moved upward as indicated in Fig. 2.

The body portion A and the facing plate B of the device are provided with interengaging flanges 8 and recesses 9, as most clearly shown in Figs. 7 and 8 of the drawings, the flanges 8 formed upon the body portion A being adapted to engage the recesses 9 upon the facing plate, and vice versa. The several flanges are so disposed that when the facing plate is in the raised position illustrated in Fig. 2 with the shoulders 7 abutting upon the projecting portion of the brass 4, the body portion and the facing plate may be separated by a

rearward movement of the body portion or obviously by a corresponding forward movement of the facing plate.

Assuming the parts to be assembled in operative relation with reference to an axle spindle, as indicated in Fig. 1, it will be obvious that the parts are retained in assembled condition by the superimposed load which is supported partly upon the body and partly upon the facing plate of the box, the facing plate being of such dimensions as to constitute flanges 3' that cooperate with the flanges 3 to form recesses for the reception of the standards (not shown) that constitute the box supporting parts of the truck. When repairs or adjustments are rendered necessary by continued wear, the superimposed load is jacked up or lifted from the box, and the facing plate may now be slid upward to the position indicated in Fig. 2. The body portion of the box may now be moved inward to separate it from the facing plate, as indicated in Fig. 4, and the facing plate may now be inverted or reversed, as seen in Fig. 5, thus permitting it to be dropped from the axle, after which liners, brasses and the like may be renewed and other needed repairs and adjustments made in a very easy and convenient manner. By the use of this device repairs and adjustments may be made in a few hours' time, the making of which have heretofore required the expenditure of from one to two days' time. It will thus be seen that irrespective of avoiding the loss of the use of the locomotive while the repairs are being made, I have produced a time and labor-saving device of simple and inexpensive construction and a high degree of efficiency.

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

1. A driving box composed of two separate parts having interengaging vertically disposed recesses and flanges, whereby said parts may be separably connected, one of said parts carrying a brass which projects at one end and the other part being provided with shoulders in the path of which the projecting end of the brass is located to limit the upward movement of said other part for the purpose of disconnecting it from said first mentioned part; the said parts being provided with flanges that co-

operate to form standard receiving recesses, and said parts being adapted to mutually support a superimposed load, whereby said parts are maintained in interlocked relation.

2. The combination of an axle box, means in which the box is arranged and supported, keying means engaging the box and the means in which the box is arranged and supported for holding the box against inward endwise movement in said means, said keying means having a portion located against the outer end of the box and adapted to be opposed to and receive the lateral thrust of a drive-wheel, and means opposed to the keying means for preventing displacement thereof.

3. The combination of an axle box, means in which the box is arranged and supported, and keying means engaging the box and the means in which the box is arranged and supported for holding the box against inward endwise movement in said means; said keying means having a portion located against the outer end of the box and adapted to be opposed to and receive the lateral thrust of a drive-wheel.

4. The combination of an axle box flanged at its inner end, means in which the same is arranged and supported, and a U-shaped key engaged with the box to prevent inward movement thereof and having a portion opposed to the outer end of the box and the outer side of said means, and arranged to be opposed to and receive the lateral thrust of a drive-wheel.

5. The combination of an axle box flanged at its inner end, means in which the same is arranged and supported, a U-shaped key engaged with the box to prevent inward movement thereof and having a portion opposed to the outer end of the box and the outer side of said means, and arranged to be opposed to and receive the lateral thrust of a drive-wheel and means detachably connecting the box and key to hold the latter against disengagement from the box.

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

HARRY HENRICKSEN.

Witnesses:

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J. E. GUY.