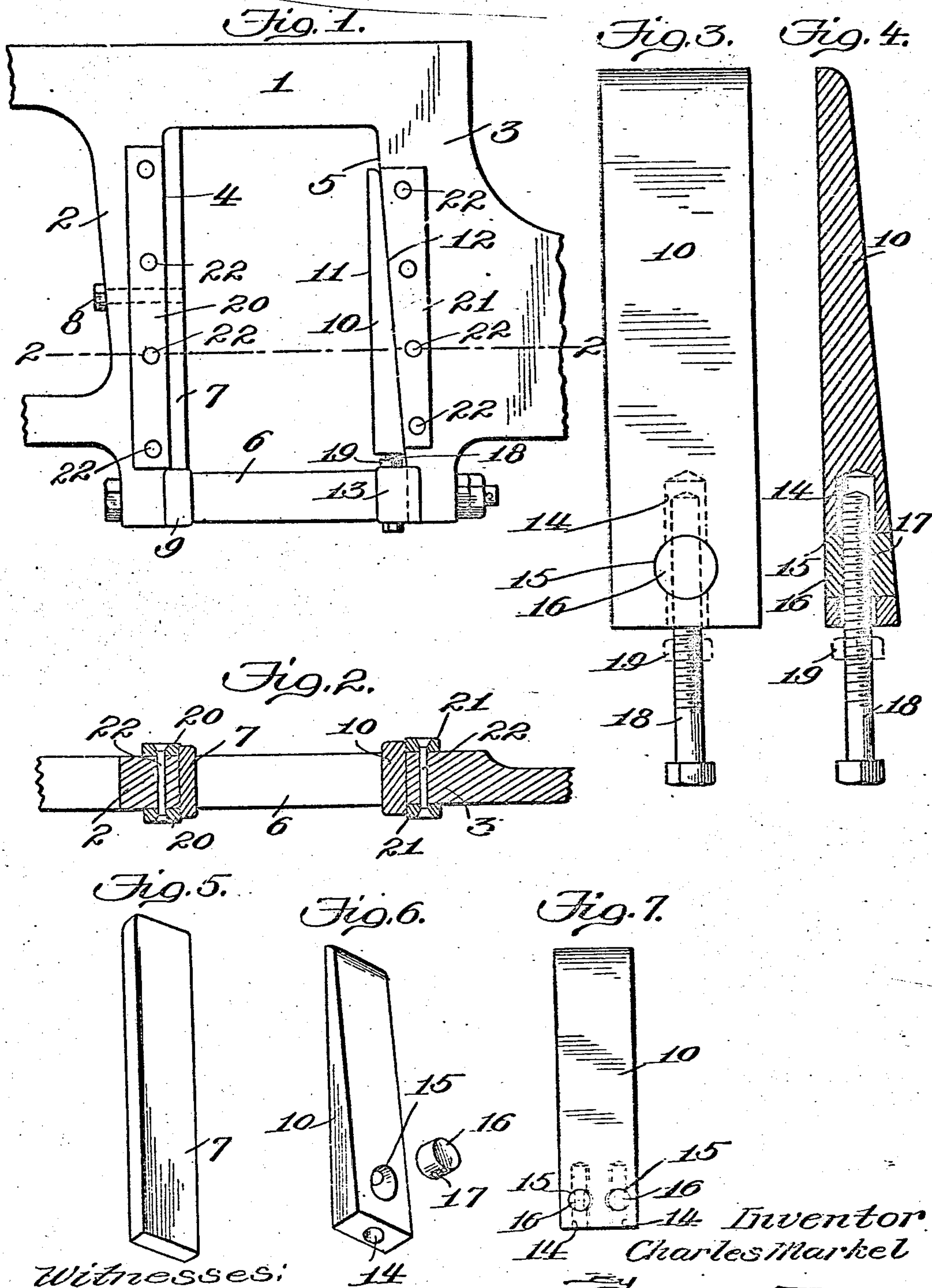


C. MARKEL.
 PEDESTAL FOR CAR TRUCKS.
 APPLICATION FILED MAR. 14, 1908.

898,906.

Patented Sept. 15, 1908.



Witnesses:
Chas. Hessler
J. B. Keefe

Inventor
Charles Markel
James L. Norris

UNITED STATES PATENT OFFICE.

CHARLES MARKEL, OF CLINTON, IOWA.

PEDESTAL FOR CAR-TRUCKS.

No. 898,906.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed March 14, 1903. Serial No. 421,074.

To all whom it may concern:

Be it known that I, CHARLES MARKEL, a citizen of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented new and useful Improvements in Pedestals for Car-Trucks, of which the following is a specification.

This invention has reference to the adjustment of the driving-boxes in the pedestals of locomotives of any type.

Heretofore the wear occasioned by the movement of the driving-boxes in pedestals has been compensated for by means of a wedge and shoe coöperating with opposed pedestal jaws, the shoe and wedge usually being flanged, or in some instances the wedge has been inserted between the one jaw and a shoe in opposition to a corresponding shoe disposed on the remaining jaw, both shoes in the latter instance being flanged. Practice has demonstrated that the use of a flanged shoe and a flanged wedge, or of two flanged shoes with a wedge interposed between one of the shoes and one jaw of the pedestal, is not a strong and durable organization in view of the fact that the flanges become broken and further interfere with and obstruct a ready adjustment to take up wear and also increase the cost of equipment of the pedestals by reason of the machine work and expense incident to the formation of the flanges. Furthermore, the parts just referred to have not been easily replaceable, or in pursuing a substitution it has been necessary to introduce a wholly new shoe or wedge in place of a similar worn device or one that has become broken, in order to restore the pedestal in proper working condition.

The object of the present invention is to dispense with the use of flanges on shoes and wedges for adjusting the driving boxes in locomotive pedestals, and substitute in lieu of the flanges pieces of machine steel the thickness of the flanges ordinarily used on wedges and shoes and removably secure such pieces to the jaw frames so that when they become worn by the action of the driving boxes they can be renewed and thus materially reduce the expense in the construction and application of shoes and wedges to the jaw frames of pedestals and have a wedge that is free to adjust without the annoyance incident to a close fit on the jaw frames as when flanged shoes and wedges are used. Furthermore, by the use

of pieces of machine steel on the jaw frames to replace the flanges ordinarily embodied in the construction of shoes and wedges, the said jaw frames adjacent the shoes and wedges are increased in strength and wear is resisted to such an extent as to materially prolong the practical use of a pedestal.

The invention consists in the construction and arrangement of parts which will be more fully hereinafter specified in preferred form.

In the drawing: Figure 1 shows a side elevation of a pedestal with the invention applied thereto. Fig. 2 is a horizontal section on the line 2—2, Fig. 1. Fig. 3 is an elevation in detail of the wedge. Fig. 4 is a transverse vertical section of the wedge. Fig. 5 is a detail perspective view showing the improved form of shoe. Fig. 6 is a detail perspective view of the improved form of wedge. Fig. 7 is a detail elevation showing a slight modification of the wedge.

Similar characters of reference are employed to indicate corresponding parts in the several views.

The pedestal shown comprises a top member 1 having two depending jaws 2 and 3. The inner wall of the jaw 2 is substantially vertical or at right angles to the lower wall of the top member 1, as at 4, and the inner wall of the jaw 3 is slightly inclined as at 5, this being the construction followed in general. Between these two jaws 2 and 3 the bearing box is disposed and has a vertical movement in the usual manner.

The lower terminals of the jaws 2 and 3 are connected by a suitable binder 6, and in some instances other analogous devices may be employed for this purpose, the invention not being limited to the use of any precise binding means, and, as hereinafter explained, a part of the organization embodied in the features of the invention will be modified to accommodate a variation in the kind of binding means that may be used. At one side of the inclosed space or pedestal containing the journal bearing or driving box, or against the wall 4 which is usually the front, is arranged a stationary shoe 7 which is retained in place by a bolt 8, the shoe engaging at its opposite extremities the top wall of the pedestal and a lower member 9 coöperating with the lower extremity of the jaw 2 and the binder means, the said shoe by such mounting being held against endwise movement. Against the opposite wall 5 of the pedestal is an adjusting member 10 consist-

ing of a wedge having an inner vertical wall 11 and an opposing wall 12 which is inclined, the reduced extremity of the wedge being in engagement with the upper portion of the wall 5 for obvious reasons. The length of the wedge is less than the distance between the top wall of the pedestal space and a lower member 13 cooperating with the binder and the lower extremity of the jaw 3 to permit of the necessary adjustment of the wedge. The inner vertical face of wall 11 of the wedge 10 directly contacts with the adjacent side or wall of the bearing box. The retention and adjustment of the wedge or adjusting member 10 is accomplished by a very simple and effective means. The lower enlarged extremity of the wedge has a longitudinal bore 14 formed therein and intersected by a counterbore 15 extending fully through from one face or wall to the other and of greater diameter than the bore 14. Within the bore 15 a circular fulcrum or swivel nut 16 is disposed and has a screw-threaded opening 17 extending diametrically therethrough. An adjusting-screw 18 is inserted upwardly through the member 13, the bore 14, and engages the screw-threaded opening 17, the diameter of the shank of the screw being materially less than the diameter of the bore 14 so that the wall of the latter bore is clear of the shank of the screw to permit the wedge to move in opposite lateral directions on the fulcrum or swivel nut 16 to compensate for irregularities in the pedestal as an entirety and which may ensue after prolonged use or to take up and provide for any irregular position of the journal box that may exist.

It will be understood from the foregoing that the shank of the screw 18 always remains in vertical position and no injury will ensue to the threads of the shank by canting of the wedge or adjusting member as the latter will move on the nut 16 which always remains in true engagement with the threaded shank of the screw 18. The screw 18 is also engaged by a jam nut 19 which bears on the upper portion of the member 13 and prevents the screw 18 from moving after adjustment. Instead of the single bore 14, counterbore 15, nut 16, and single screw 18 a duplicate construction may be used, as clearly shown by Fig. 7, to accommodate a differentiation in the character of the binding means engaging the lower extremities of the jaws 2 and 3, and in this duplicate construction there are two bores 14 each intersected by a counterbore 15, two nuts 16, and a corresponding number of screws, the duplicate bores being arranged on opposite sides of the vertical center of the wedge or adjusting member 10. By turning the screw or screws 18 the adjusting member 10 may be moved vertically against the wall 5 to take up irregularities.

The essential feature of the invention, as hereinbefore noted, consists in the use of a flangeless wedge and a flangeless shoe in opposition to decrease the expense of manufacture and avoid the annoyances and inconveniences attending similar devices having flanges and as now commonly used. The specific kind of metal used in forming the shoe and wedge or adjusting member is not particularly essential, but it has been found that a flat shoe made from machine steel and a wedge or adjusting member formed from cast iron give the best results. In place of the flanges on the shoe and wedge, steel pieces 20 and 21 are applied to the opposite sides of the jaws 2 and 3 respectively adjacent to the shoe 7 and the wedge or adjusting member 10. The steel pieces 20 have their opposite side edges parallel and the edges thereof adjacent the pedestal space are engaged by opposite portions of the shoe 7, as clearly shown by Fig. 2. The pieces 21 have the edges thereof engaged by the wedge or adjusting member 10 inclined correspondingly to the wall 5, and said inclined edges of the pieces 21 are directly engaged by the opposite portions of the wedge. These pieces 20 and 21 are secured in place by rivets 22 and are removable, or when worn either one or both of the pairs of pieces may be replaced by similar pieces without requiring a substitution of a new shoe or a new wedge as is necessary in replacing shoes and wedges having integral flanges. The pieces 20 and 21 also strengthen the portions of the jaws 2 and 3 which they engage, and being formed of machine steel they will be found quite durable and replacement thereof will only be necessary at long intervals. The shoe 7 and wedge 10 may also be replaced without renewing the pieces 20 and 21 or at a time when the said pieces are in condition for further practical use and service. The pieces 20 and 21 may be termed removable flanges cooperating with but separate from the shoe 7 and wedge 10; and by the use of these pieces the cost of machine work and general construction of shoes and wedges for use with car pedestals is materially reduced.

It will be observed by reference to Fig. 2 that the wedge and shoe are slightly narrower than the outside faces of the jaws formed by the pieces or plates 21, the object of this difference in width of the parts just mentioned being to permit the flanges on the driving boxes to strike the pieces or plates 21 without disturbing the shoe or wedge.

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

1. A car pedestal having a flangeless shoe at one side and a flangeless member or wedge at an opposite side to engage a journal box, the flangeless member or wedge being adjustable longitudinally and laterally.

2. A car pedestal having a flangeless shoe

and a laterally adjustable flangeless member or wedge in opposition to the shoe to engage a journal box.

3. A car pedestal having a flangeless shoe
5 and separate flanges secured to opposite portions thereof and engaged by the said shoe.

4. A pedestal for locomotive driving boxes having frame jaws, a shoe and a wedge disposed in operative position and in opposition
10 against the jaws to engage a driving box, and separate flanges secured to opposite sides of the frame jaws and engaged by the shoe and wedge.

5. A pedestal for driving boxes of locomotives having frame jaws inclosing a space for a driving box, a shoe immovably held against one wall of the space, and an adjusting wedge member disposed against the opposite wall of the space, the shoe and wedge member being
15 flangeless and having their inner walls clear for direct engagement with the driving box.

6. A pedestal for the driving box of a loco-

motive having a laterally adjustable member provided with a fulcrum adjusting means at one extremity.

7. A pedestal for the driving box of a locomotive having an adjusting member or wedge movable longitudinally and laterally to take up irregularities and wear of the driving box and pedestal.

8. A pedestal for locomotive driving boxes, a flangeless shoe and a flangeless wedge disposed in operative position and in opposition
30 on the pedestal, and separate flanges on opposite portions of the pedestal and cooperating with the shoe and wedge.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES MARKEL.

Witnesses:

HARRY FULLER,
OTTO ROSENBERGER.