

W. CASE.  
JOURNAL BOX AND WEAR PLATE THEREFOR.  
APPLICATION FILED JAN. 8, 1912.

1,063,655.

Patented June 3, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

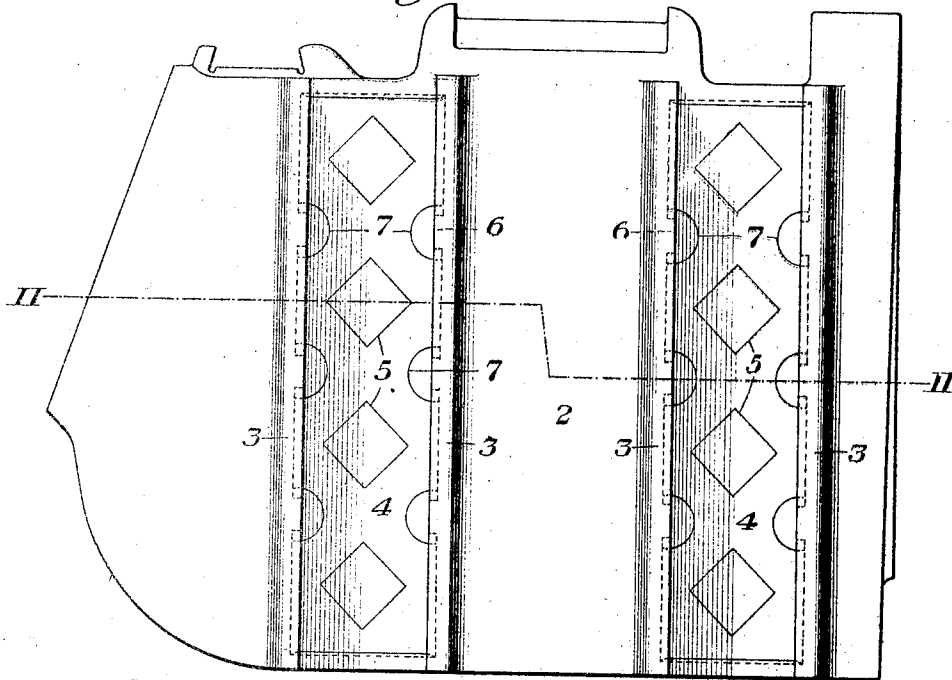
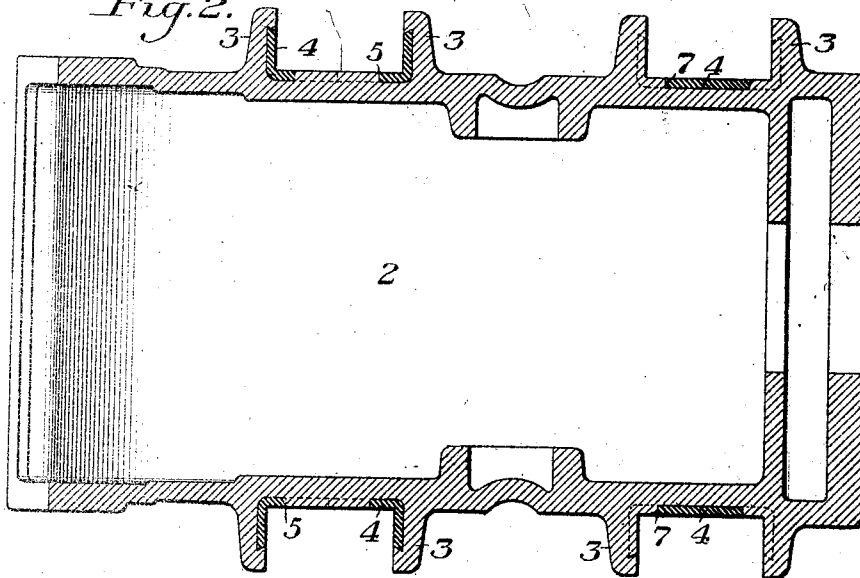


Fig. 2.



WITNESSES

R. A. Balderson  
W. F. Amarise

INVENTOR

William Case  
by Robert Hynes & Bonnell  
his attys

W. CASE.  
JOURNAL BOX AND WEAR PLATE THEREFOR.  
APPLICATION FILED JAN. 3, 1912.

1,063,655.

Patented June 3, 1913.

2 SHEETS-SHEET 2.

Fig. 3.

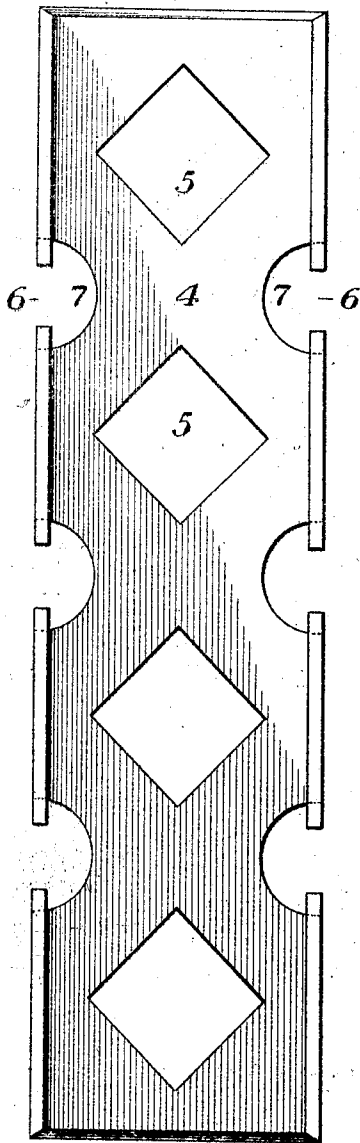


Fig. 4.

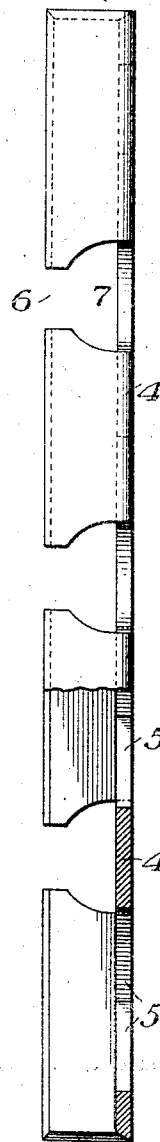
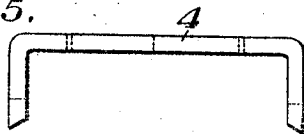


Fig. 5.



WITNESSES

R. A. Balderson

W. H. Maritz

INVENTOR

William Case  
by Balderson, Byrnes & Bonnell  
his attys

# UNITED STATES PATENT OFFICE.

WILLIAM CASE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

## JOURNAL-BOX AND WEAR-PLATE THEREFOR.

1,063,655.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed January 3, 1912. Serial No. 669,196.

*To all whom it may concern:*

Be it known that I, WILLIAM CASE, of Chicago, Cook county, Illinois, have invented a new and useful Improvement in Journal-Boxes and Wear-Plates Therefor, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of one form of journal box embodying my invention; Fig. 2 is a section on the line II—II of Fig. 1; Fig. 3 is a plan view of one of the wear plates or inserts; Fig. 4 is a side view of the same partly broken away; and Fig. 5 is an end view of the wear plate or insert.

My invention has relation to journal boxes and wear plates or inserts therefor, and is specially designed as an improvement upon the devices shown in the patents to J. J. Manning and J. W. Stephenson, Nos. 922,792 and 922,793, of May 25th, 1909.

The present invention is designed to provide an improved form of wear plate or insert.

In the accompanying drawings, the numeral 2 designates a journal box which is in general of the usual construction, being provided at each side with the vertical ribs or projections 3, which form the grooves or guides to receive the truck pedestals.

4 designates the improved wear plates or inserts, which are cast in place in these lateral grooves or guides in substantially the manner described in the Manning and Stephenson patents above referred to. Each of these inserts is of channel-form in cross-section, the web portion being formed with a plurality of openings 5 and the side flanges also having openings or cut-away portions 6. The web portion is also preferably cut away as shown at 7 adjacent to each of the openings or cut-away portions 6. The inserts are preferably made of sufficient length to cover at least a major portion of the length of the pedestal guide or groove, and yet are so made up of comparatively isolated areas of metal by reason of the apertures 5, 6 and 7, that they become heated quickly and are more readily fused with the molten cast

metal forming the box, thus securing the inserts against becoming loose after the box is in service. When the inserts are in position in the mold, and the mold is poured, the molten metal flows into the openings 5 and also into the openings or cut-away portions 6, thereby securely binding the inserts in the box casting. The side openings or cut-away portions 6 not only assist in locking the inserts in place; but they also increase the effective thickness of the side portions of the pedestal guides, and thereby increase the strength of the latter. They also provide for the escape of gases in the pouring of the metal around the inserts. These inserts may be of any suitable metal, preferably hard enough to be wear-resisting, and of a character which will stand annealing.

What I claim is:—

1. A wear plate or insert for castings, comprising a piece of metal having a web, and lateral flanges at an angle to the web, and also having a plurality of openings in the angles between the flanges and the web, said openings being partly in the web and partly in the flanges; substantially as described.

2. An insert or wear plate for castings, comprising a piece of metal consisting of a web and side flanges, the flanges being at substantially right angles to the web, and both the flanges and the web having bonding or anchoring openings therein; substantially as described.

3. A casting having a groove, and a hard metal wear plate cast in said groove to form a lining therefor, said plate consisting of a web and side flanges and having openings at the angles between the web and flanges which are filled by the metal of the body of the casting, such portions of the metal forming anchors for the wear plate; substantially as described.

In testimony whereof, I have hereunto set my hand.

WILLIAM CASE.

Witnesses:

E. M. RICHARDSON,  
A. G. HOLMBERG.