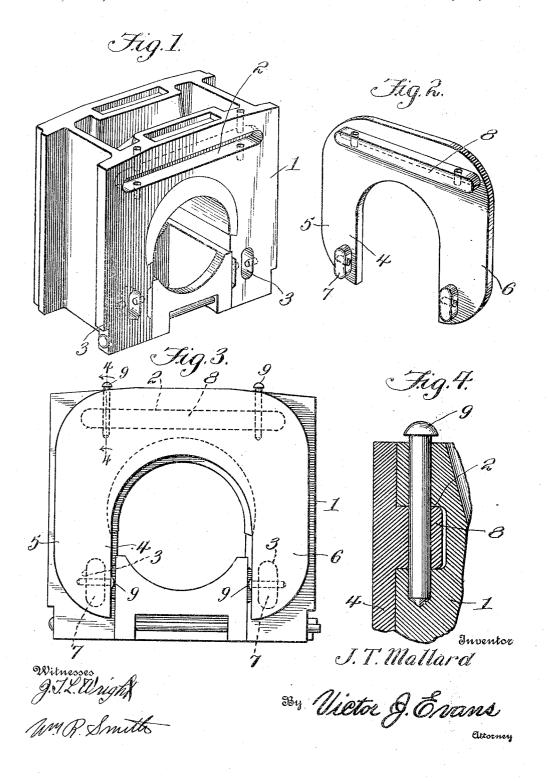
## J. T. MALLARD. REMOVABLE HUB LINER FOR JOURNAL BOXES. APPLICATION FILED MAR. 10, 1916.

1,197,520.

Patented Sept. 5, 1916.



## UNITED STATES PATENT OFFICE.

JOHN T. MALLARD, OF NEWBERN, NORTH CAROLINA.

REMOVABLE HUB-LINER FOR JOURNAL-BOXES.

1,197,520.

Specification of Letters Patent.

Patented Sept. 5, 1916.

Application filed March 10, 1916. Serial No. 83,383.

To all whom it may concern:

Be it known that I, JOHN T. MALLARD, a citizen of the United States, residing at Newbern, in the county of Craven and State 5 of North Carolina, have invented new and useful Improvements in Removable Hub-Liners for Journal-Boxes, of which the following is a specification.

This invention relates to hub liners for journal boxes and more particularly to a liner that may be applied to journal boxes now in use so as to prevent end play of the axle, and it has for its primary object to accomplish the foregoing without dropping the axle and wheels which is the usual practice.

An object of the invention is to provide a liner so associated with the journal box that machining of the latter is obviated.

Another object of the invention is the 20 novel manner of associating the plate and journal casing so that the space necessary for the horizontal and lateral movement of the plate when removing can be obtained by removing the shoes and wedges of the associated axle.

Besides the above my invention is distinguished in the relative arrangement of a plurality of ribs insertible in the casing so that stresses in all directions will be propage of the stresses of the care of.

The invention will be better understood from the following detailed description taken in connection with the accompanying drawing, wherein a preferred embodiment is illustrated, and the features of novelty including all the above mentioned and various others will be thereafter pointed out in the appended claim.

In the drawing: Figure 1 is a perspective 40 view of a journal box casing. Fig. 2 is a perspective view of the plate. Fig. 3 is a view showing the plate associated with the casing. Fig. 4 is a detailed sectional view on the line 4—4 of Fig. 3.

Referring to the drawing the numeral 1 designates the casing of a journal box of the usual formation. In carrying out my invention the rear face of the casing 1 is formed with a longitudinally extending 50 slot 2 and a pair of horizontally spaced ver-

tically extending slots 3.

The plate 4, the main element of the invention, is shown in this particular instance of U-shaped formation so that the limbs 5

and 6 may straddle the axle that is supported 55 in the casing 1. Each of the elements 5 and 6 has formed thereupon a key or rib 7 snugly fitting the slot 3 while the upper portion of the plate has formed thereupon a third key or rib 8 snugly mounted in the slot 2. At 60 this point I wish to call attention to the fact that the ribs do not extend the full depth of the slots for the purpose of insuring the proper relation between the rear face of the casing and the rear surface of 65 the plate. It is to be understood that the ribs and slots may be of such a configuration that the plate will be held against movement during the use of the device with-out the use of securing elements but if 70 found advantageous in practice a plurality of pins 9 may be used, these pins 9 being detachably mounted in the casing and passing through the ribs.

A very important feature of my inven- 75 tion is the fact that all of the elements may be cast, thus dispensing with the expense of machining.

It is to be understood that while all of the several features of my improved device 80 have special coöperation with one another and together constitute a particularly effective device for the purpose in view, certain of these features may be applied in other relations such as bending the ribs in 85 such a direction that longitudinal movement of the plate upon the axle will be prevented, and I therefore desire to cover the combination present in the several parts of my improved device whether employed in 90 the general organization shown or elsewhere.

What I claim is:

In combination with a driving box having its rear face provided with a plurality of 95 slots certain of which having their lengths arranged at an angle to each other and a plate of substantially U-shaped formation having ribs equal in number and snugly fitting said slots and pins detachably mounted 100 in said casing and passing through said ribs.

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

JOHN T. MALLARD.

Witnesses:

WM. R. SMITH, BENNETT S. JONES.