T. R. MILLER.

MEANS FOR INDICATING THE WEAR IN JOURNAL BEARINGS.

APPLICATION FILED MAY 17, 1920.

1,433,217. Patented Oct. 24, 1922.

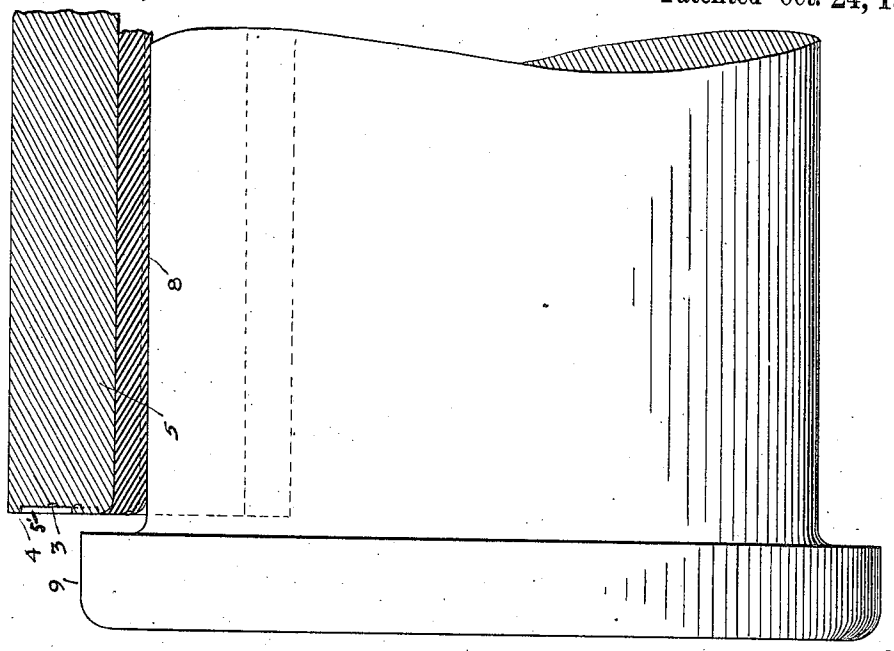

FIG. 2

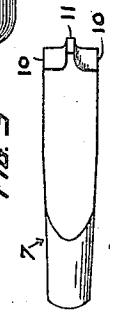

FIG. 3

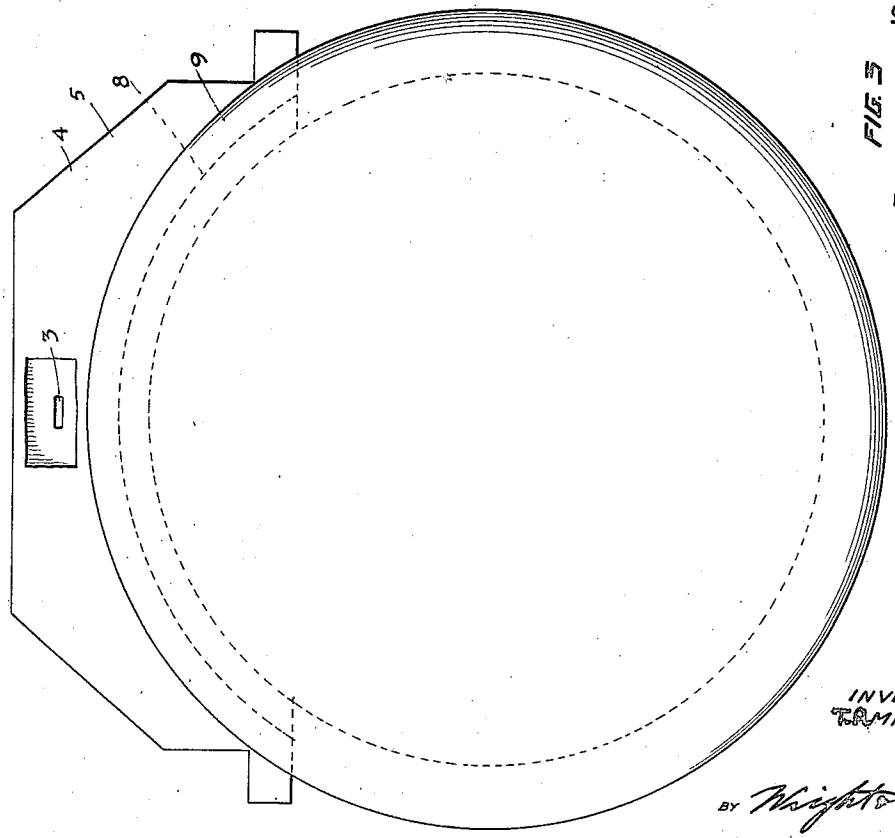

FIG. 1

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UNITED STATES PATENT OFFICE.

THOMAS R. MILLER, OF SACRAMENTO, CALIFORNIA.

MEANS FOR INDICATING THE WEAR IN JOURNAL BEARINGS.

Application filed May 17, 1920. Serial No. 382,087.

To all whom it may concern:

Be it known that I, THOMAS R. MILLER, a citizen of the United States, residing at Sacramento, in the county of Sacramento and State of California, have invented new and useful Improvements in Means for Indicating the Wear in Journal Bearings, of which the following is a specification.

The present invention relates to simple and efficacious means for indicating the wear and determining the limit of wear of babbitt linings of brasses in the journal bearings of railroad rolling stock.

The present method of inspecting journal bearings to determine the wear of the linings thereof requires that the journal boxes be "jacked up" and the brasses removed. Very often the inspector puts a brass back into the box thinking sufficient lining remains to permit of further use of the brass when in reality not enough lining is left. This is true since without a guage, it is difficult to determine the thickness and amount of wear of these linings. A great many "hot boxes" and "burnt off" journals result from the present practice of inspecting journal bearings.

It is the primary object of my invention to eliminate the danger of hot boxes and burnt off journals, to simplify the present method of inspection, and to provide a positive easily readable guage whereby the wear of the linings may be accurately and readily determined and the limit of wear accurately indicated.

The invention possesses other advantages and features, some of which, with the foregoing, will be set forth at length in the following description wherein I shall outline in full that form of the invention which I have selected for illustration in the drawings accompanying and forming a part of the present specification. In said drawings, I have shown one form of the construction of my invention, but it is to be understood that I do not limit myself to such form, since the invention as expressed in the claim may be embodied in a plurality of forms.

Figure 1 is a front elevation of a part of a journal bearing constructed in accordance with this invention.

Figure 2 is a fragmentary side elevation of the bearing in Figure 1 showing in dotted lines the position of the parts when the lining has been worn to its safe limit.

Figure 3 is a perspective view of the marking punch.

In carrying out my invention, as shown in the drawings, I make a clearly visible, distinct mark 3 on the outside end 4 of the journal brass 5 of a railway car journal bearing, whereby when the journal box, not shown, is opened, the mark is presented to view. The mark is made after the new, or newly lined brass, is put into place in the bearing, with a special marking punch 7, and assuming the babbitt lining 8 to be the standard one-quarter of an inch in thickness, the mark is made three-sixteenths of an inch above the journal collar 9. The mark is preferably made one-quarter of an inch long and one-sixteenth of an inch wide. The outer end of the journal brass 5 is provided with a recess 5′ which is adapted to receive the marking tool 7 such that the mark 3 may be made at the bottom of the recess.

When, upon inspection of the bearing, the mark 3 is shown flush with the upper edge of the journal collar 9, there is but one-sixteenth of an inch of the lining 8 left, and the brass should be removed and relined before further use, or a new brass put in, and in either case, marked as described hereinbefore. At any time upon inspection, the mark 3 shows above the journal collar, there is more than one-tenth of an inch of the lining left and the brass may be used further. Thus, it will be seen that it is possible with my invention to readily and easily determine the wear of the lining and to accurately ascertain the thickness of the lining at all times without removing the brass.

I facilitate and insure accuracy of marking by use of the special punch 7. This punch near one end has flat faces 10 and the die 11 is spaced three-sixteenths of an inch from each flat face, said die being one-sixteenth of an inch thick. Therefore, when the punch is inserted in the journal box and one of the flat faces 10 is brought to rest on the journal collar, the die will be in the correct position to mark the brass and by striking the punch with a hammer or mallet, the proper mark, accurately placed, will be made. The special punch makes it possible

to quickly and accurately mark a large number of brasses in a comparatively short time.

I claim:—

The combination with a journal brass, of a lining on said brass, a recess in the outer end of said brass, said recess being adapted to receive a marking tool complementary to the recess and having means to mark the bottom of said recess at a fixed point, the recess and the mark therein lying in such relation to the collar of a cooperating journal that the mark is a less distance from the collar than the thickness of the said lining.

THOMAS R. MILLER.