April 21, 1925. 1,534,082

W. H. SANFORD

DEVICE FOR PROTECTING CAR AXLE JOURNALS

Filed Nov. 11, 1922

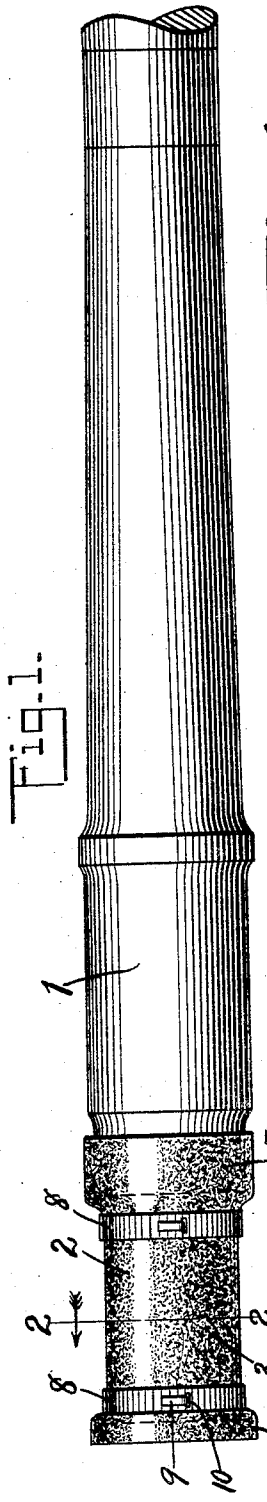



Fig. 1.




Fig. 4.

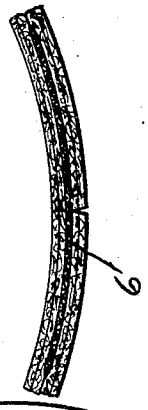



Fig. 5.

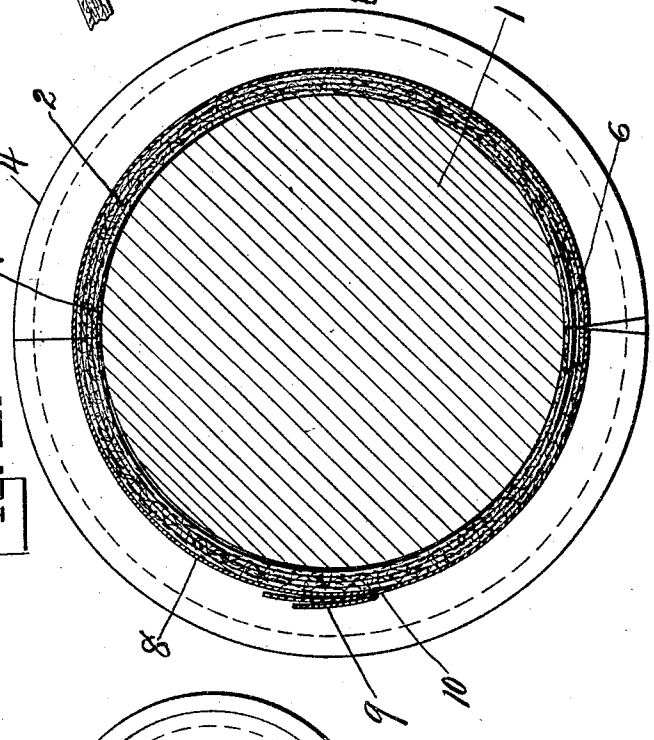



Fig. 2.

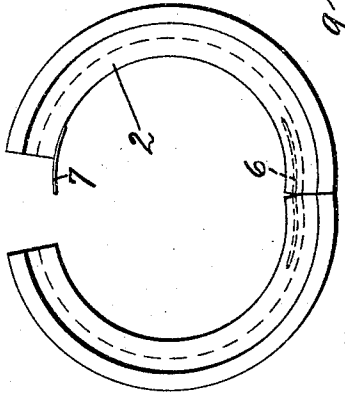



Fig. 3.

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# UNITED STATES PATENT OFFICE.

WILLIAM H. SANFORD, OF BUFFALO, NEW YORK.

## DEVICE FOR PROTECTING CAR-AXLE JOURNALS.

Application filed November 11, 1922. Serial No. 600,457.

*To all whom it may concern:*

Be it known that I, WILLIAM H. SANFORD, residing at Buffalo, Erie County, State of New York, and being a citizen of the United States, have invented certain new and useful Improvements in a Device for Protecting Car-Axle Journals, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and to use the same, reference being had to the accompanying drawings, which illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof within the scope of the claims will occur to persons skilled in the art.

In said drawings:

Fig. 1 is a view in elevation of a portion of a car axle with my improved journal protection applied thereto;

Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1;

Fig. 3 is a view in elevation of my device shown detached from the axle;

Fig. 4 is a section similar to Fig. 2 taken through a portion of my device showing the manner in which the opening between engaging faces of two sections is closed; and

Fig. 5 is a similar section showing the manner in which the sections of my device may be joined by flexible woven material which forms a hinge uniting the sections.

It is an object of my invention to provide an improved device for protecting the journals of railway car axles which may be substituted for the lagging which is now used. It is also an object of my invention to provide a protection of such character that it may be molded or formed so as to be readily applied to the axle journal. It is also an object of my invention to provide a protection of the type described of molded or pressed fibrous material.

With these and other objects in view my invention, which is shown in the drawings applied to the journal at one end of a car axle 1, comprises a tube 2 of fibrous material such as paper or papier-mâché or other suitable material.

The tube 2 has a central portion 3 which fits the axle journal proper and portions 4 and 5 of greater diameter at the ends which serve to cover and protect the shoulders at the ends of the journal. Tube 2 may be formed of layers of heavy paper or other suitable material wrapped to a proper form and size and secured together by a suitable binder and then divided longitudinally into sections in order that the tube may be readily applied to the journal or the tube may be formed from a pulp which is pressed or molded into the shape of the sections which go to form the tube. As shown in Fig. 2 the tube is divided into two sections joined by a hinge 6, which is formed of a piece of a suitable woven material as a light canvas, having its ends inserted and secured in the sections. The other meeting edges of the sections are lapped by a flap 7 secured to one of the sections. This construction provides a tube which may be opened so as to be easily slipped upon the journal.

To secure the tube 2 upon the journal binding straps 8 are provided which comprise flexible metal strips having reduced ends 9 adapted to engage in slots 10 in the other ends of the strips and to be folded over so as to secure the strips about the tube as shown in Fig. 2. In order that the tube may withstand exposure to the weather the tube is treated with a water proofing compound or a suitable water proofing compound may be mixed with the pulp of which the tube is formed. Forming the device in the manner described permits of the tube being made sufficiently thick to provide adequate protection for the finished journal surface while at the same time providing a protection that is readily and cheaply provided and readily applied and removed from the journal.

What I claim is:—

1. A device for protecting axle journals comprising a tube composed of water proofed sections molded to the journal shape, hinges connecting said sections and means adapted to secure the sections on the journal.

2. A device for protecting axle journals comprising a tube composed of shaped sections having end portions of greater radius than the central portion of the tube, em-

bedded hinges connecting said sections, and binding means engaging the central portion to secure said tube on an axle journal.

3. A device for protecting axle journals comprising a tube formed of molded sections having central portions adapted to engage the axle journal and end portions of greater radius than said central portion adapted to engage the shoulders at the ends of the axle journal, fabric hinges embedded in the sections to movably connect the sections, and means for securing the sections in place about an axle.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

WILLIAM H. SANFORD.

Witnesses:
FAY M. MITCHELL,
JOHN P. BRACH.