J. STEPHENSON.

OILING PAD FOR JOURNAL BOXES.

Patented June 10, 1884. No. 300,029. Witnesses: Johnly Hinkel

United States Patent Office.

JOHN STEPHENSON, OF NEW YORK, N. Y.

OILING-PAD FOR JOURNAL-BOXES.

SPECIFICATION forming part of Letters Patent No. 300,029, dated June 10, 1884.

Application filed May 2, 1884. (No model.)

To all whom it may concern:

Beitknown that I, John Stephenson, a citizen of the United States, residing in the city, county, and State of New York, have invented 5 certain new and useful Improvements in Oiling-Pads for Journal-Boxes, of which the following is a specification.

My invention is an oiling-pad or lubricating device especially adapted for use in connec-10 tion with that class of journal-boxes in which the bearing is above the journal, the said pad being constructed as fully described hereinafter, so as to maintain the lubricating material in contact with the axle, preserve the uni-15 form surface of the pad, and prevent the undue

wearing of the latter. In the drawings, Figure 1 is a side elevation of my improved pad. Fig. 2 is a transverse

section on the line 1 2, Fig. 1. Fig. 3 is a per-20 spective view of the pad. Fig. 4 is a perspective view showing a modification, and Fig. 5

is a transverse section of Fig. 2.

Among the methods heretofore employed for lubricating journals of axle-boxes it has been 25 common to employ pads of felt or other fabric or absorbent material capable of holding oil in contact with the under side of the journal. The practical difficulty in this class of lubricating devices has been the rapid destruction 30 of the felt, especially when used in connection with new or newly-turned journals, the comparatively rough surfaces of which act with a rasping effect upon the felt and rapidly destroy the integrity of the pad, this result being fa-35 cilitated when a spring is employed for forcing the pad upward and holding it under pressure against the surface of the journal. I remedy this difficulty by inserting in the contactsurface of the pad blocks, pieces, or strips of 40 metal, preferably lead or other soft metal or composition, the faces of said metallic pieces being flush with and conformed to the bearingface of the pad, so that the latter presents a continuous surface in contact with the journal. 45 These metallic pieces serve, first, to prevent the face of the felt being forced so firmly against the journal as to cause the destructive rasping and wearing of the felt; and, further, they aid in the distribution of the oil over the face of 50 the journal; at the same time they wear away with sufficient rapidity to compensate for the normal wearing of the felt, so that the surface

of the latter cannot wear down below that of the metal.

The felt pad may be supported in any suit- 55 able manner, and the strips may be of any desired shape and held in place by any suitable means. In the drawings the felt strip A is shown as supported by a metallic cradle, B, either consisting of two bent plates clamped 60 together, as in Figs. 1, 2, and 3, or of a castmetal trough with a central downwardly-projecting web, as in Figs. 4 and 5, in either case the cradle carrying the pad and supporting it below and in contact with the journal C, 65 under the action of a spring, D, which bears

against the bottom of the box I.

In Figs. 1, 2, and 3 the metal blocks E are shown as consisting of strips extending lengthwise of the pad, or approximately thereto, and 70 retained by the rivets s. In Figs. 3 and 4 each piece E is a curved block inserted in the felt pad and retained in place by screws passing through openings in the cradle and extending into the block. It is not necessary to form re- 75 cesses in the felt pad to receive the strips or blocks, as the latter will, when applied to the felt, sink into the latter as it expands on becoming saturated with oil. As the metal pieces are carried by the felt, and not by the cradle, 80 they will conform to the movements of the felt, and thus be maintained in contact with the journal, even should the cradle get a little out of line.

Any suitable substitute for felt—as thick cot-85 ton material, porous paper, asbestus fibers, &c.—may be employed.

Without limiting myself to the precise construction and arrangement of parts shown, I claim—

1. An oiling-pad having in its contacting surface strips or pieces of lead or other material secured in the felt, with the surface in the same plane as that of the felt, substantially as and for the purpose described.

2. An oiling-pad having metallic facingpieces and resting upon a spring-support, whereby it is maintained with its face in contact with that of the journal, substantially as set forth.

3. An oiling-pad consisting of felt and inserted pieces of soft metal, substantially as and for the purpose set forth.

4. An oiling-pad consisting of a soft porous

pad carrying inserted pieces of soft metal, and a spring supporting the pad in contact with the journal, substantially as described.

5. The combination of the curved cradle sup-5 ported by a spring and pad of porous material, and metallic pieces secured to the pad, substantially as described.

6. An oiling-pad having embedded in its surface strips of soft metal extending lengthwise

of the pad, or approximately thereto, substan- 10 tially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN STEPHENSON.

Witnesses:

STUART A. STEPHENSON, WM. J. WALKER.