No. 663,407. Patented Dec. 11, 1900.

E. ARMSTRONG.

OILER FOR CAR JOURNALS.

(Application filed Mar. 5, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

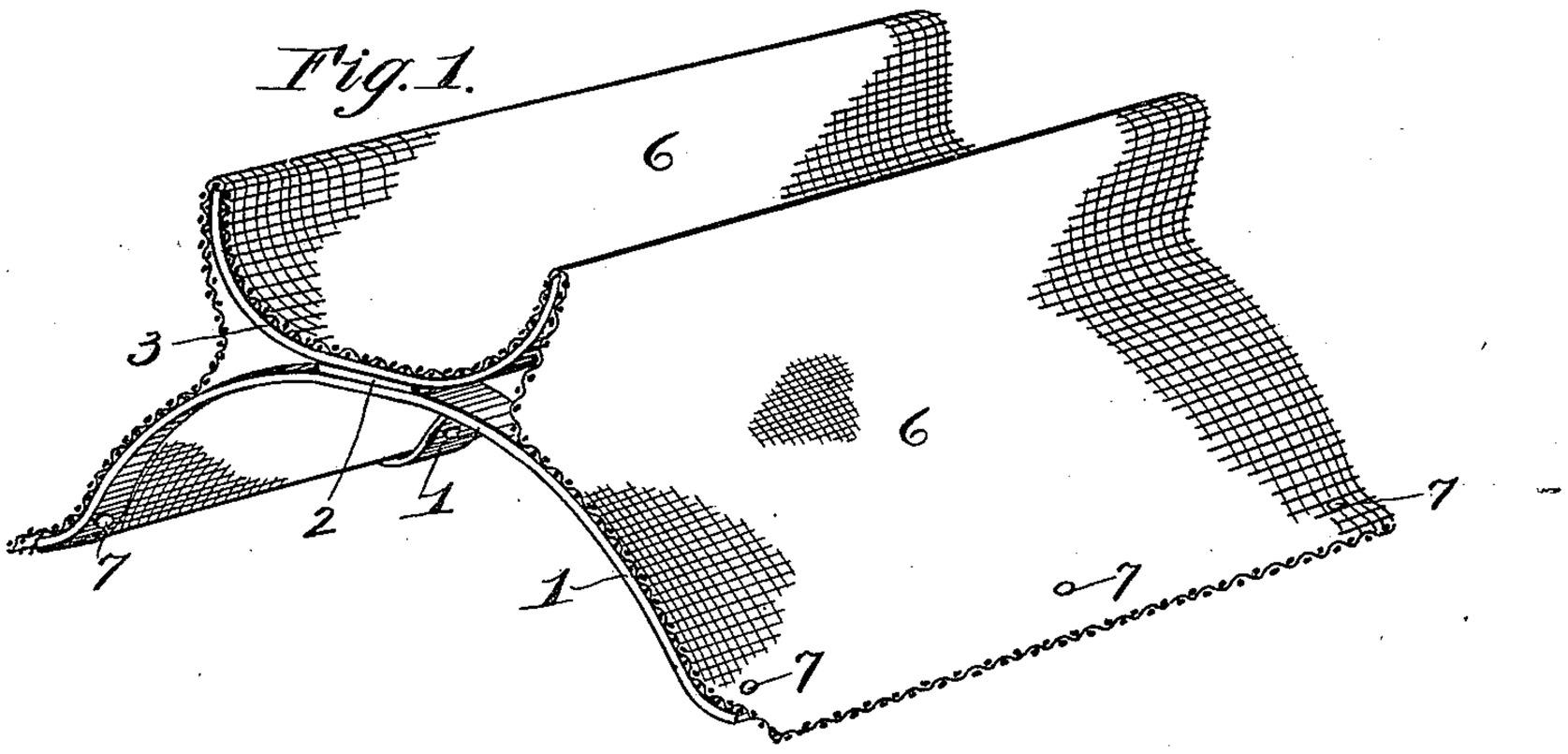


Fig. 2.

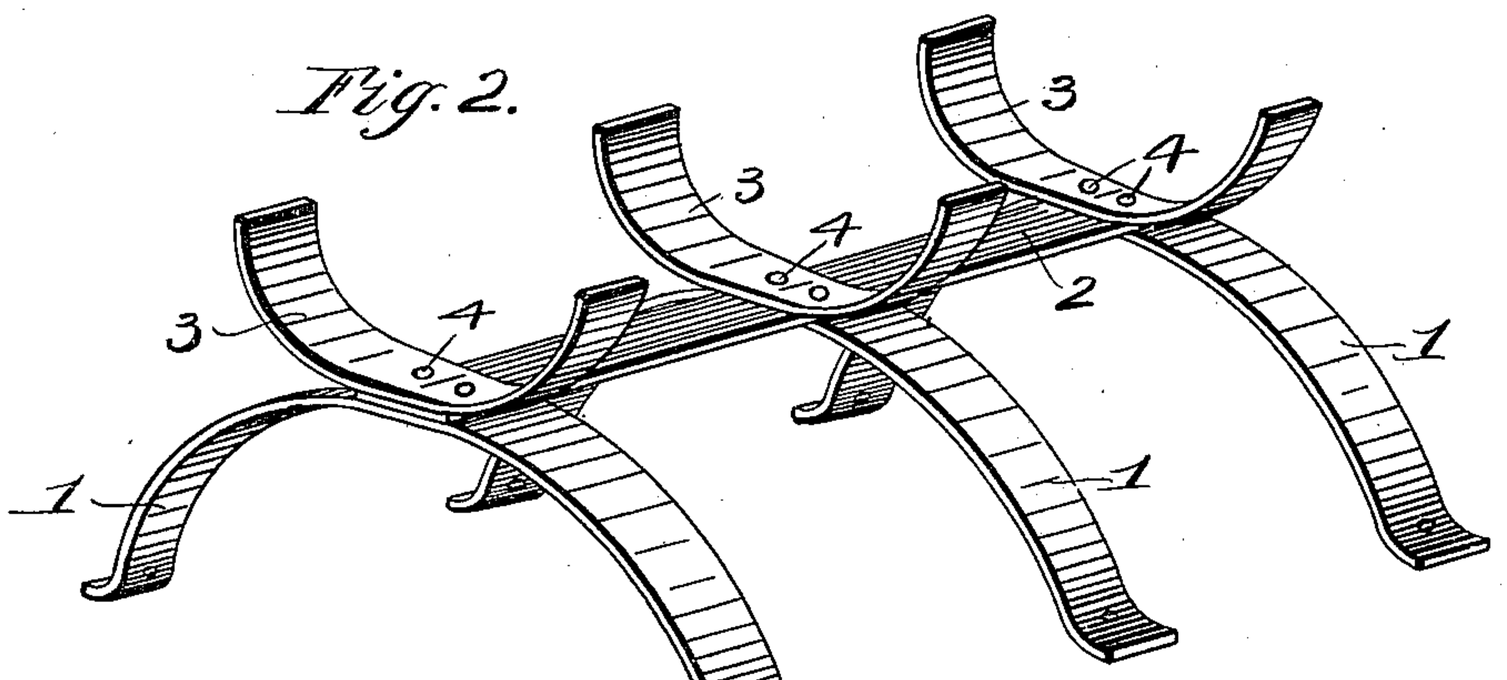
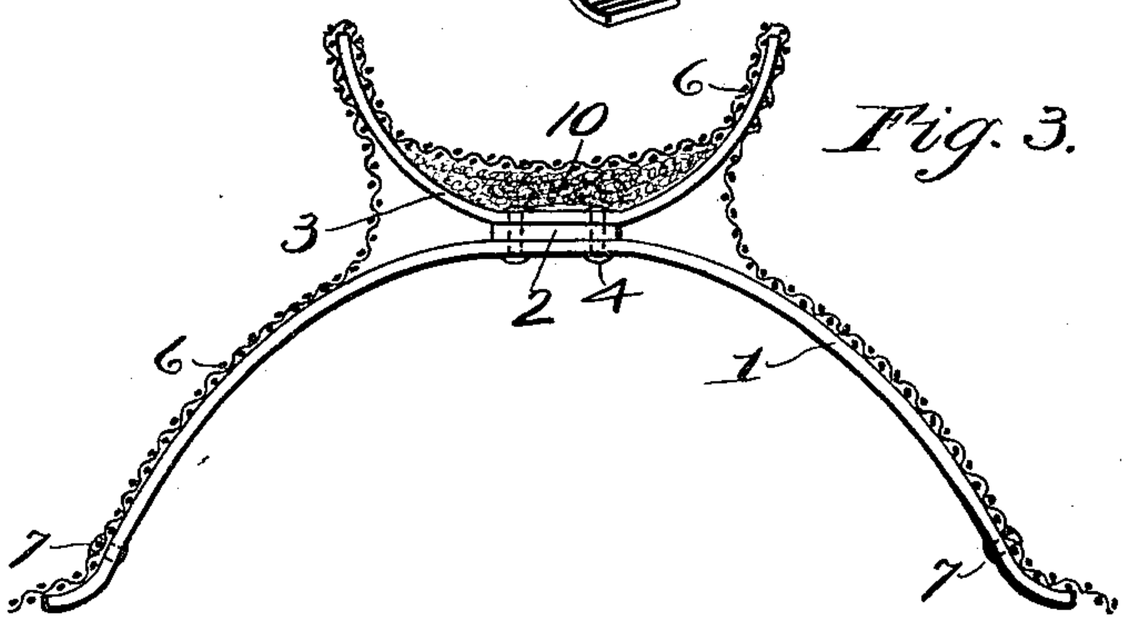


Fig. 3.



Witnesses.
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Fig. 4.

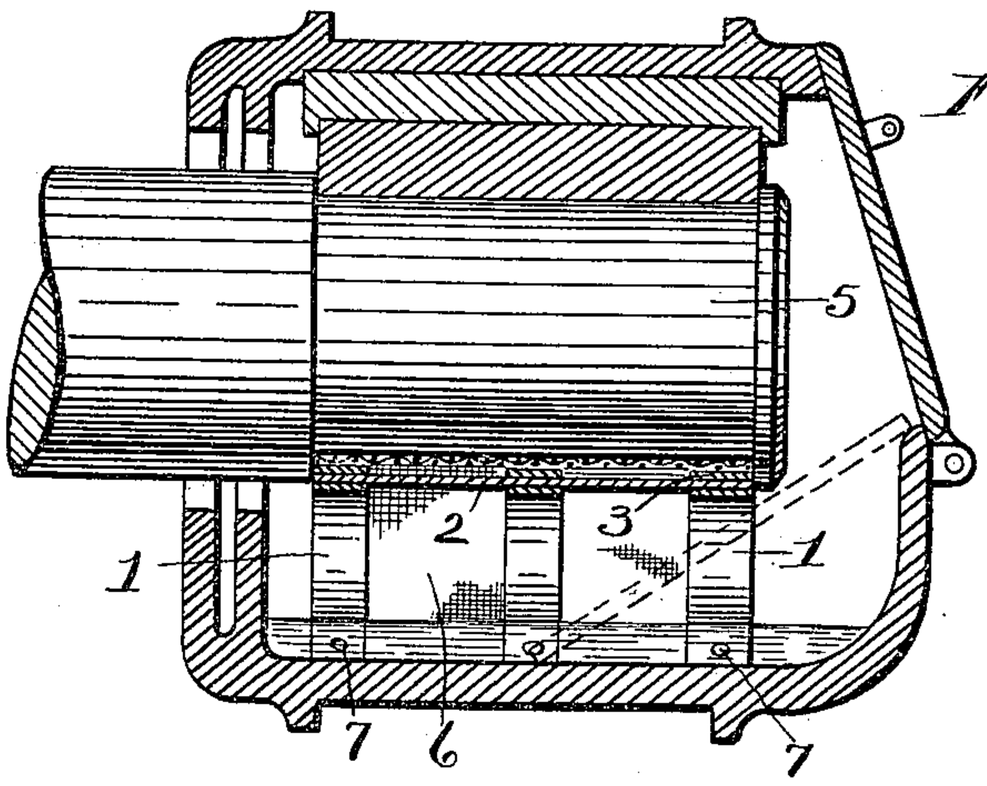


Fig. 5.

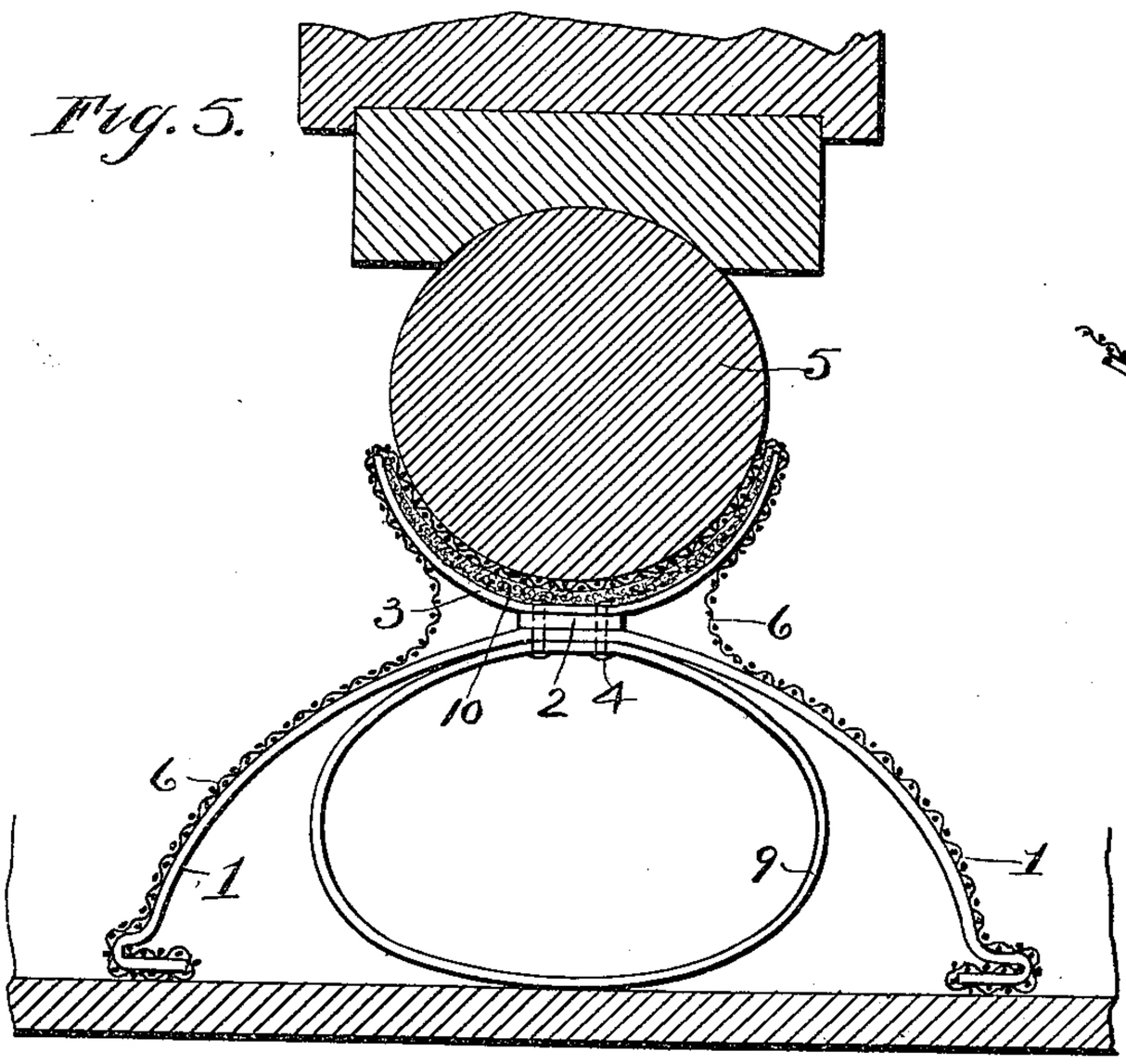


Fig. 6.

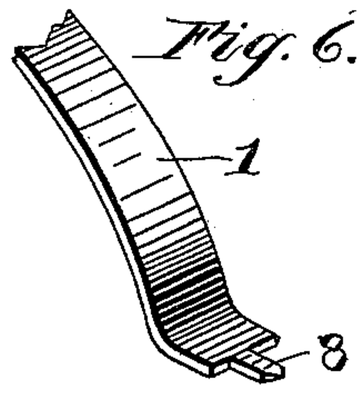
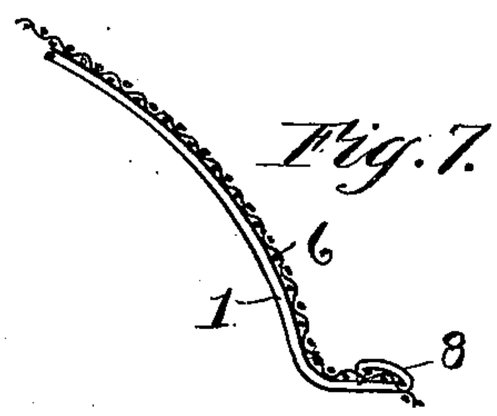


Fig. 7.



Witnesses.

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UNITED STATES PATENT OFFICE.

ERNEST ARMSTRONG, OF CAMDEN, NEW JERSEY.

OILER FOR CAR-JOURNALS.

SPECIFICATION forming part of Letters Patent No. 663,407, dated December 11, 1900.

Application filed March 5, 1900. Serial No. 7,434. (No model.)

To all whom it may concern:

Be it known that I, ERNEST ARMSTRONG, a citizen of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Oilers for Car-Journals; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to an oiler for car-journals, and has for one object to provide a device of this character that shall be convenient of insertion without the necessity of jacking up the box and that when in position shall insure a uniform and continuous feed of lubricant to the journal until the entire supply of oil within the box is exhausted.

A further object is to provide an oiler of inexpensive construction and that shall be automatic in its action.

A further object is to provide for a constant supply of lubricant to the journal without the attention at present required and that shall reduce the cost of lubrication to a minimum and at the same time avoid the loss of time and accidents so frequent in the use of waste in the feed of lubricant to the journals

In the drawings, Figure 1 is a perspective view of a complete oiler. Fig. 2 is a like view with the wicking removed. Fig. 3 is an end view showing a layer of waste interposed between the base and wicking. Fig. 4 is a longitudinal vertical section of a car-axle box, showing the car-axle within the box, the dotted lines showing the manner of insertion of the oiler within the box, this view being drawn on a reduced scale. Fig. 5 is a transverse section showing the axle-journal resting on the oiler and the employment of a supplemental spring to urge the wicking into close contact with the journal in the event of the resilient legs of the base being insufficient. Fig. 6 is a detail broken view of a portion of one of the legs of the base, showing a modified form of fastening of the wicking; and Fig. 7 is a like view with the wicking secured.

The invention consists in the several features illustrated in the drawings and hereinafter described and claimed.

The essential feature of my invention is to provide for a constant feed of lubricant to the journal by means of a capillary wicking held in contact with the journal by means of a resilient base that shall sustain the wicking and also allow the wick to be immersed in the oil or saturated with the oil until the entire supply has been exhausted, thereby dispensing with the use of loose waste and the necessary attentions to keep the journal-box supplied.

In my experience I have found that hot journals are in most instances due to the fact that the waste when saturated with lubricant becomes soggy and contracts to a degree to leave the journal, whereby a hot journal may occur even with a full supply of lubricant. In my invention this possibility is avoided by reason of a resilient support to the lubricant-feeding medium.

1 designates a plurality of curved spring-supports having a horizontal plate 2 connected therewith at the center of length, and consequently the highest point of curvature, there being a plurality of inversely-curved arms 3 secured upon the plate 2 and to the curved spring-supports 1 by means of rivets or screws 4. The curved arms 3 have a semicircular contour of an area in cross-section to coincide with the diameter of journal 5 to rest therein, the whole forming a base. Secured upon the curved springs 1 is a fabric 6, preferably of wicking, and which extends over the curved arms 3 and into the curvature thereof, whereby the journal 5 may rest upon the wicking and as the oil is fed by capillary attraction is lubricated thereby. The fabric or wicking is secured to the base in any preferred manner, as by rivets 7, as shown in Figs. 1 and 3, or the spring-supports may have reduced and pointed ends 8, as shown in Fig. 6, to pass through the wicking, and thereby hold it in contact with the lowest point of lubricant, and the point 8 may be bent upon itself, as shown in Fig. 7, to more securely hold the wicking.

It will be seen from the foregoing that the oil is constantly fed to the journal by reason of the capillarity of the fabric, and that the springs (which are normally of a length to be

compressed when the axle rests within the curved arms 3) will be in constant tension to normally hold the wicking to the journal.

In Fig. 5 I have shown elliptical springs 9, supplemental to the springs 1, which may be employed in the event of unusual swaying of the journal to assist in keeping the wicking to the journal. I prefer to secure the supplemental springs 9 directly to the spring-arms when employed by means of the rivets or screws 4.

In Figs. 3 and 5 I have shown a packing 10, of waste or analogous material, which may be interposed between the arms 3 and the wicking with any preferred means of securing the same in place. Ordinarily if waste be used it will rest directly upon plate 2 and arms 3, although it may be further secured to the wicking if desired.

In Fig. 4 I have shown in full lines in vertical section the oiler as applied to a journal within a car-axle box and in dotted lines the manner of insertion within the box, it only being necessary to compress the springs and pass the oiler within the lid-opening. It will be seen that I have reduced the cost of equipment of a box to a minimum, have dispensed with labor and waste, and provided for a reliable feed of lubricant to the journal.

While I have particularly described my invention as adaptable for the lubrication of car-journals, it will be understood that there are a variety of positions in which it may be employed as an oiler, and, further, that I may vary its construction greatly for adaptability to various uses without departing from the spirit of my invention.

What I claim is—

1. In an oiler for journals, a horizontal plate, a plurality of downwardly-curved spring-supports secured in spaced relation upon the plate, a plurality of inversely-curved arms secured upon the plate at the center of their length, and a capillary fabric resting upon the upper surfaces of the curved arms and extending to the base of the supports, and secured thereto.

2. In an oiler for journals, a plurality of curved springs, a horizontal plate connected therewith at the point of greatest curvature of the springs, a plurality of arms secured upon the plate and curved upwardly to closely embrace the journal, a capillary fabric resting within the arms and partially embracing the journal, the ends of the fabric extending to the lower ends of the curved springs, and secured thereto.

3. As an article of manufacture, a base for an oiler for journals comprising a plurality of spring-supports, a plurality of upwardly-curved arms, and a plate, and means for securing the supports and the arms in spaced relation and in vertical alinement upon the plate.

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

ERNEST ARMSTRONG.

Witnesses:

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WILLIAM WEBSTER.