E. MOONEY.

LUBRICATING DEVICE FOR RAILWAY VEHICLE AXLES.

APPLICATION FILED DEC. 16, 1920.

1,389,965. Patented Sept. 6, 1921.

Fig 1.

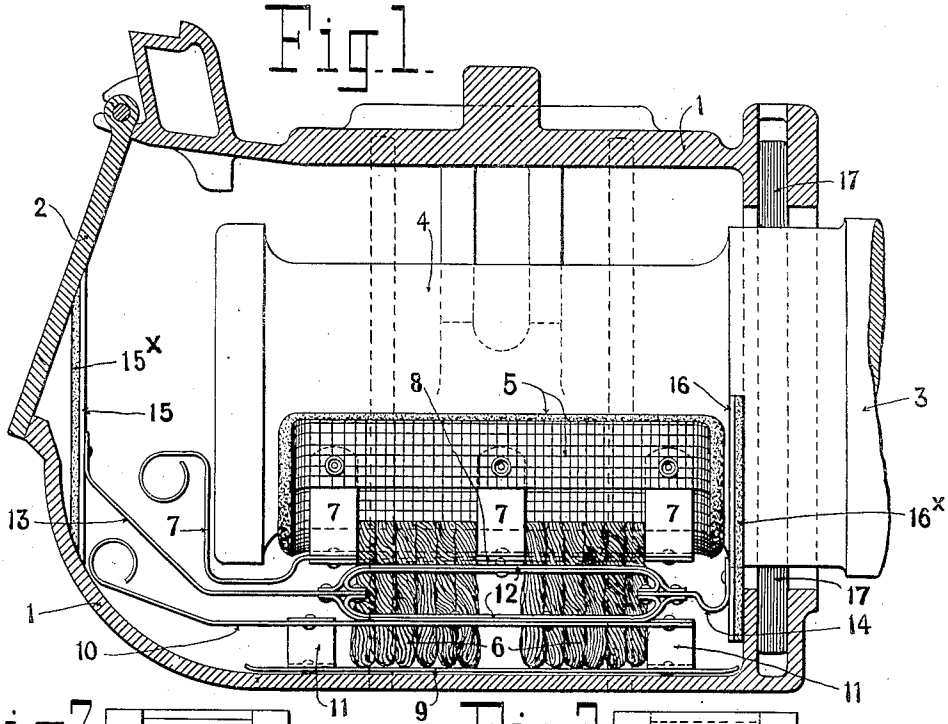


Fig 2.

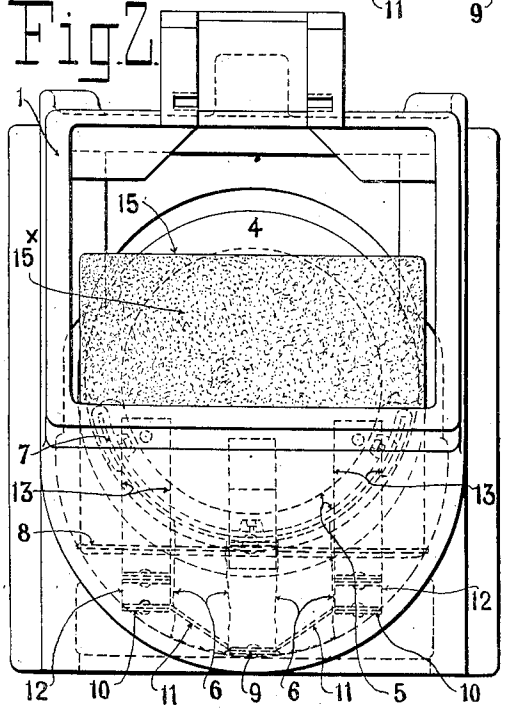
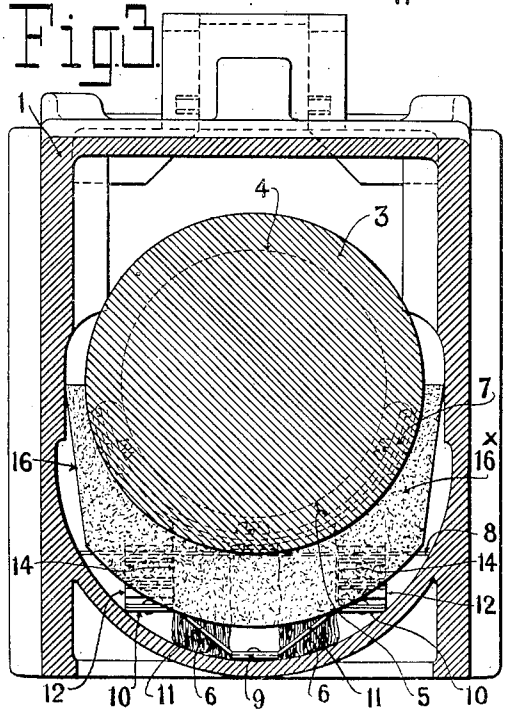


Fig 3.



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UNITED STATES PATENT OFFICE.

ERNEST MOONEY, OF YORK, ENGLAND.

LUBRICATING DEVICE FOR RAILWAY-VEHICLE AXLE.

1,389,965. Specification of Letters Patent. Patented Sept. 6, 1921.

Application filed December 16, 1920. Serial No. 431,138.

To all whom it may concern:

Be it known that I, ERNEST MOONEY, a subject of the King of Great Britain, residing at York, in the county of York, England, have invented certain new and useful Improvements in Lubricating Devices for Railway-Vehicle Axles, of which the following is a specification.

This invention relates to that kind of railway axle lubricating device in which an absorbent pad connected to or formed integral with capillary feeders dipping into the oil in the axle-box is supported in contact with the journal by means of a spring frame or carrier constructed of flexible strip metal for enabling it to be easily inserted into the axle-box; my object being to provide the lubricating device with means by which dust or snow shall be prevented from entering the axle-box with a view to materially increasing the efficiency of the said lubricating device as a whole.

According to my invention, the spring frame of the lubricating device is constructed with flexible end members carrying a front shield and a rear shield so arranged that on the lubricating device being passed into position the said shields are caused to press against the front and rear ends respectively of the axle-box in such a manner as to effectually exclude dust or snow, and this without in any way interfering with the action of the spring frame in its work of supporting the lubricating pad in contact with the journal.

The end members of the spring frame may conveniently comprise either flexible metal strips or crossed flexible levers attached directly to the said spring frame, while the shields themselves would be of a width slightly less than the interior of the axle-box and would be faced with felt or other pliable material of a width either equal to that of the shields or of a width slightly larger than that of the axle-box.

In the accompanying sheet of drawings, Figure 1 is a longitudinal section of an axle-box showing the lubricating device with its front and rear shields in the operative position therein. Fig. 2 is a front end elevation of the same axle-box showing particularly the front shield of the lubricating device, the hinged lid of the axle-box being omitted for the purpose of illustration; while Fig. 3 is a rear transverse section of the same axle-box showing particularly the rear shield of the lubricating device.

Referring to the drawings, 1 is the axle-box fitted with a hinged lid 2, while 3 is the axle and 4 the journal turning in bearings in the axle-box 1. The known lubricating device consists of an absorbent pad 5 formed integral with capillary feeders 6 dipping into the oil in the axle-box 1 and being supported in contact with the journal 4 by means of a spring frame comprising a cradle 7, a transverse bearer strip 8 central to the cradle 7, a base member 9 attached to longitudinal side members 10 by transverse strips 11, and double elliptical side members 12 attached to the longitudinal side members 10 and to the ends of the transverse bearer strip 8.

According to my invention, the double elliptical side members 12 of the spring frame are constructed with forwardly projecting flexible metal side strips 13 and rearwardly projecting flexible metal side strips 14, respectively carrying a front shield 15 and a rear shield 16. The front and rear shields 15, 16 are of a width slightly less than the interior width of the axle-box 1 and are respectively faced with a layer of felting material 15^x, 16^x; and the front shield 15 is pressed outwardly by the flexible side strips 13 with its bottom edge against the front interior of the axle-box 1 and with its top edge against the interior of the lid 2 of the said axle-box 1, while the rear shield 16 is pressed by the flexible side strips 14 outwardly with its flat face against the back interior surface of the axle-box 1 and upwardly with its top edge engaging the lower part of the axle 3 which it encircles.

It will now be understood that when the lubricating device is in the operative position as shown in the drawings, the front shield 15 will effectually prevent dust or snow from entering the axle-box 1 by way of the oil aperture in the event of the hinged lid 2 being left open; and further, that the rear shield 16 will effectually prevent dust or snow from entering the axle-box 1 by way of the rear aperture in the event of the guard 17 being omitted.

By providing the lubricating device with

the shields 15 and 16 above described, the efficiency of the lubricating device as a whole will be materially increased.

What I claim as my invention, and desire to secure by Letters Patent is:—

1. In a lubricating device of the kind specified; the combination with an absorbent pad connected to or formed integral with capillary feeders and being supported on a spring frame or carrier constructed of flexible strip metal, of front and rear shields carried on flexible end members attached directly to the spring frame or carrier, substantially as described.

2. In a lubricating device of the kind specified; the combination with an absorbent pad connected to or formed integral with capillary feeders and being supported on a spring frame having double elliptical side members, of front and rear shields faced with felt or other pliable material and being carried on flexible end members attached directly to the double elliptical side members of the spring frame or carrier, substantially as described.

3. In a lubricating device of the kind specified; the combination with an absorbent pad connected to or formed integral with capillary feeders and being supported on a spring frame having double elliptical side members, of front and rear shields faced with felt or other pliable material and being carried on flexible end members comprising metal side strips attached directly to the double elliptical side members of the spring frame or carrier, substantially as described.

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

ERNEST MOONEY.

Witnesses:

JOHN JOWETT,

CYRIL BELLAMY.