

(No Model.)

2 Sheets—Sheet 1.

J. LOESEWITZ.  
PACKING RING FOR AXLE JOURNALS.

No. 421,505.

Patented Feb. 18, 1890.

Fig. 1.

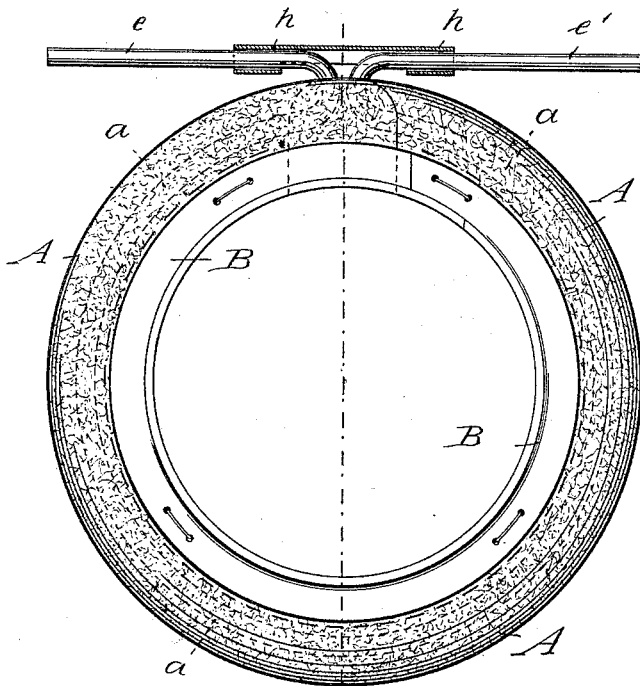


Fig. 2.

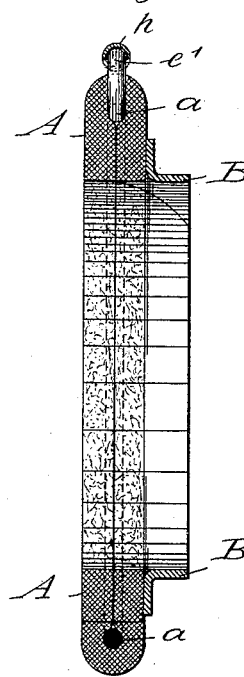
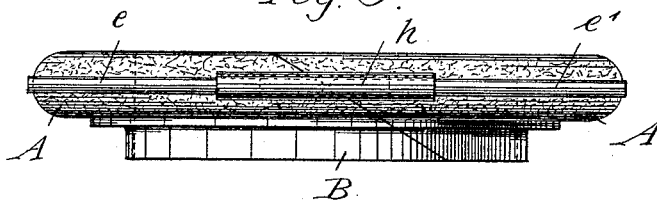


Fig. 3.



Witnesses:

*Hopkins.*  
*W. Giff.*

Inventor:

*Johannes Loesewitz*

by

*A. M. L. & Co.*  
Attorneys

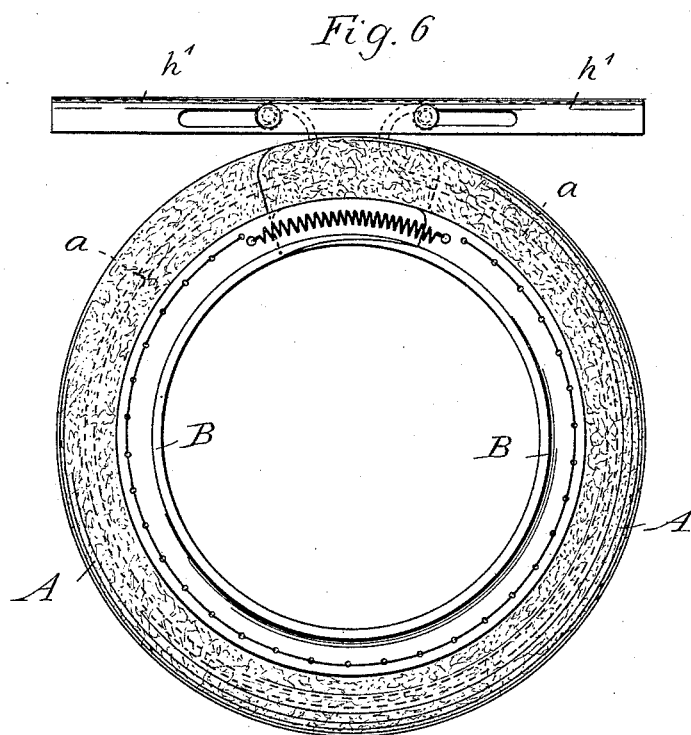
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2 Sheets—Sheet 2.

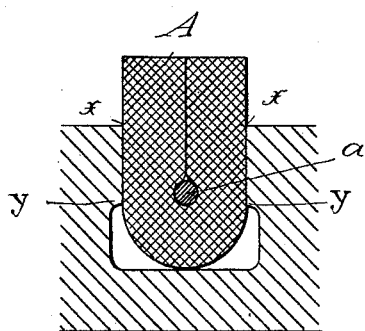
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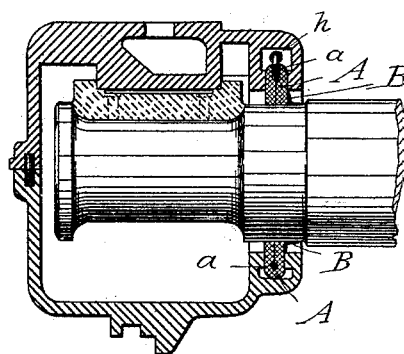
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*Fig. 5.*



*Fig. 4.*



Witnesses  
*Hopkins.*  
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# UNITED STATES PATENT OFFICE.

JOHANNES LOESEWITZ, OF WITTEN-ON-THE-RUHR, PRUSSIA, GERMANY.

## PACKING-RING FOR AXLE-JOURNALS.

SPECIFICATION forming part of Letters Patent No. 421,505, dated February 18, 1890.

Application filed November 13, 1889. Serial No. 330,187. (No model.) Patented in England December 27, 1887, No. 17,783; in Sweden January 10, 1888, No. 1,333; in Norway January 10, 1888, No. 779; in Belgium March 28, 1888, No. 81,213, and in Austria-Hungary September 16, 1888, No. 15,549 and No. 31,930.

*To all whom it may concern:*

Be it known that I, JOHANNES LOESEWITZ, a subject of the King of Prussia and German Emperor, and a resident of Witten-on-the-Ruhr, German Empire, have invented certain new and useful Improvements in Packing-Rings for Axle-Journals of Railway Rolling-Stock, (for which I have received Letters Patent in England, No. 17,783, on the 27th of December, 1887, under my name, and under the name of Gottfried Maass in Sweden, No. 1,333, on the 10th of January, 1888; in Norway, No. 779, on the 10th of January, 1888; in Belgium, No. 81,213, on the 28th of March, 1888; in Austria-Hungary, No. 15,549 and No. 31,930, on the 16th of September, 1888,) of which the following is an exact description.

In order to make my specification more clear, I refer to the accompanying drawings, which form part of this specification, and in which similar letters denote similar parts throughout the several views.

Figure 1 is a side elevation of my improved packing-ring. Fig. 2 is a section through the middle of the same. Fig. 3 is a plan of the same. Fig. 4 shows the position of the ring in the axle-journals. Fig. 5 shows an enlarged view of the same. Fig. 6 is a modified form of the ring.

The ring is placed between the axle-box and axle, and has the purpose of effectually preventing the grease from escaping from the grease-box and keeping the axle-box free from dust.

The packing-ring consists of a piece of felt A, sewed round a wire ring *a*, as shown in Fig. 2. The form of the wire ring may be clearly seen in Fig. 1. Its two ends *e e'* are not joined to form a complete ring, but are bent back horizontally and held together by tube *h*, in which they also have play. The felt ring is not joined, but its two ends are cut off slanting, so that they overlap each other, Fig. 3. To the side of the felt ring is sewed an angle-ring B of leather, also having its ends overlapping each other, Fig. 3. The ends of both leather and felt ring are not sewed together, but simply lie over each other. The object of the wire ring having its ends *e e'* bent round horizontally is that the same may come against the sides of the

axle-box and prevent the ring from turning round, whereby the point where the ends overlap each other will be always kept on the top of the axle, where the grease is least likely to ooze out. The wire ring has play, in order that when the felt or leather wears down the same may be continually held against the axle. The sides of the felt ring further fit tightly against the sides of the axle-boxes *x y x y*, Fig. 5. The object in placing the wire ring so near the outside circumference of the felt ring is to prevent the same, on becoming saturated with grease, from jamming against the corners *y y* of the axle-boxes. As may be seen in Fig. 5, the force of the elasticity of the wire ring is brought to bear on the felt ring right between the two points where the latter is most likely to get jammed.

I can modify the construction as shown in Fig. 6 by substituting for the tube *h* the guide-plate *h'*, where the ends of wire ring *a* are attached to pins running in slits in plate *h'*, and the ends of the leather ring are drawn together by an extra spiral spring. The felt ring has the purpose of preventing the grease from oozing out from inside the axle-box, while the leather ring prevents dust from entering the axle-box from outside.

I am aware that felt rings with wire rings have been constructed previous to my invention for this purpose and also, that leather rings have been used; but

What I claim, and desire to secure by Letters Patent of the United States, is—

In packing-rings, the combination of a wire ring having its ends bent back horizontally for the purpose specified, and connected by a tube-piece *h* and sewed into a felt ring having its ends overlapping each other, with an angle-ring of leather having also its ends overlapping each other and sewed onto the felt ring in the manner substantially as described and shown, and for the purpose specified.

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

JOHANNES LOESEWITZ.

Witnesses:

GUSTAVE ALBERT OELRICHS,  
W. D. WARNER.