

(Specimens.)

E. WAITE.

PACKING FOR AXLE BOXES.

No. 326,179.

Patented Sept. 15, 1885.

Fig. 1.

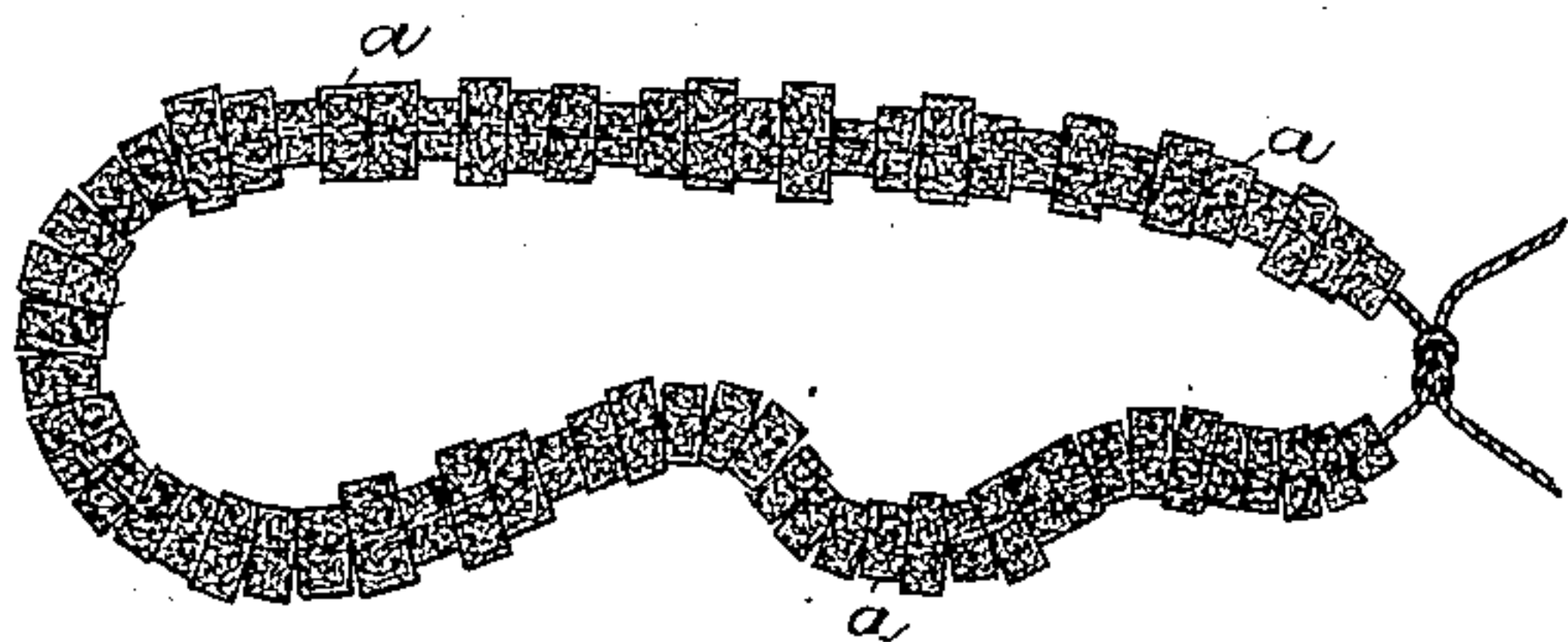


Fig. 2.

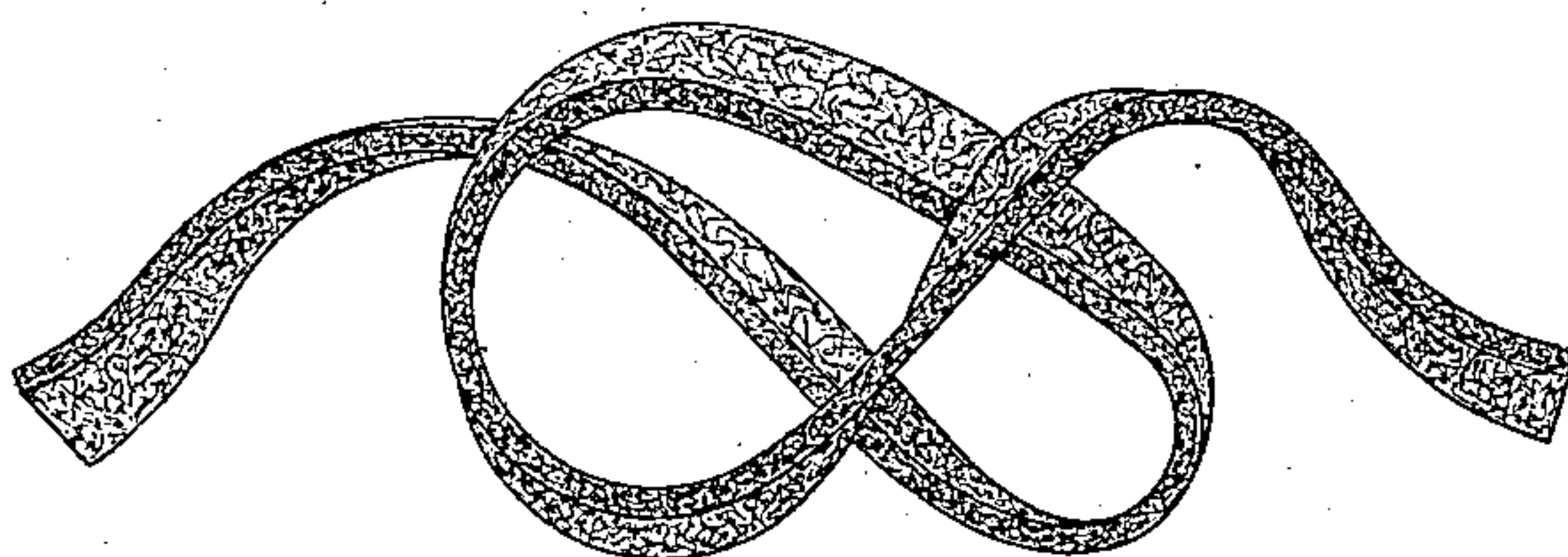
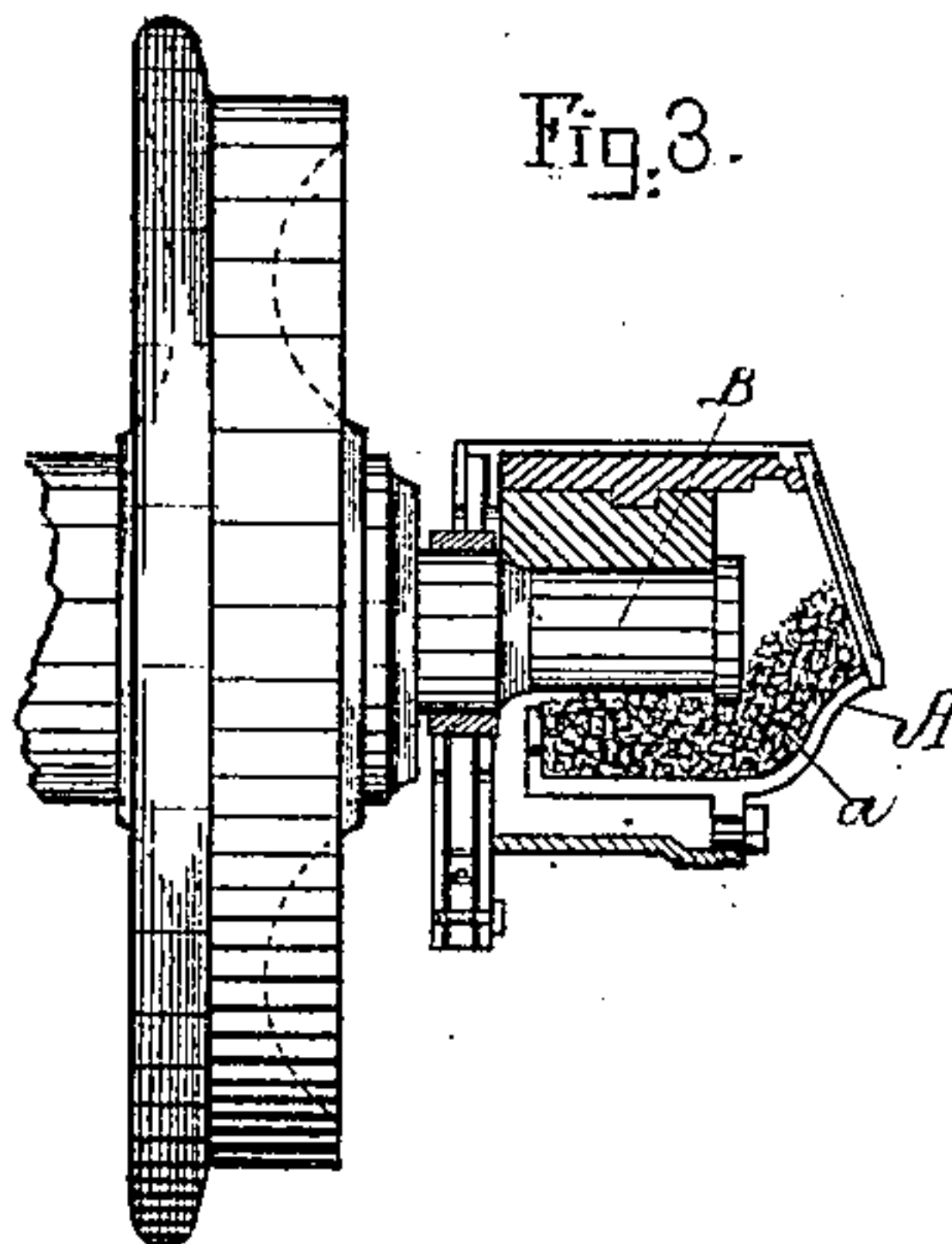


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

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PACKING FOR AXLE-BOXES.

SPECIFICATION forming part of Letters Patent No. 326,179, dated September 15, 1885.

Application filed May 23, 1885. (Specimens.)

To all whom it may concern:

Be it known that I, ENOCH WAITE, of Franklin, county of Norfolk, State of Massachusetts, have invented certain new and useful Improvements in Packing for Axle-Boxes, of which the following is a specification.

In the drawings accompanying and forming a part hereof, Figure 1 shows a quantity of packing strung together in the manner in which I prefer to prepare it for use in car-axle boxes. Fig. 2 is a modified form. Fig. 3 is a section of a car-axle box packed with my improved lubricant-packing.

My invention is specially adapted to car-axle bearings, although, as will be obvious, it may be conveniently applied to other bearings. For the purpose of keeping car-axles oiled, the boxes are at present commonly filled with woolen waste or similar material composed of loose fibers or threads, which is saturated with oil and tightly packed into the box. This waste is not, however, always clean, but frequently contains sand and dirt, which cuts the bearing, and has an injurious effect. It is also difficult to get out quickly in case the box becomes heated, and trains are often delayed for this reason; and it is further imperfect in its working, being liable to sag down in the box, so as not to touch the axle, but allow it to heat, while separate threads in some cases get wound around the axle, and are liable to ignite and set the box on fire.

The object of my invention is to secure a stuffing or packing which shall supply oil in sufficient quantities to the bearing and yet be free from these objectionable features.

In preparing my improved packing I prefer to use a felt fabric, made chiefly from wool and hair, lightly felted, and of considerable thickness—say from an inch to two inches—although the precise thickness is not material. This I cut into small pieces *a*, Fig. 1, or into strips, (see Fig. 2,) of convenient size to be crowded in a crumpled or irregular shape into the box; and for convenience in handling the small pieces *a*, I string them on cord or flexible wire, (see Fig. 1,) making the strings of sufficient length so that not more than two or three of them will be required to pack a box. The stringing of the pieces does not interfere with the efficiency of the packing, while in case it is desired to remove it from the box for any reason a string may be pulled

out at a time, thus emptying the box very speedily, which is of considerable importance. This method of handling it is also of like importance in repacking the box speedily.

In car-axle boxes the vehicle or packing for supplying the lubricant to the bearing occupies a space within the box *A*, Fig. 3, below the axle *B*; and for the greatest efficiency the packing should be springy or resilient, in order to press up against the axle, and not of a character to solidify or mat down, and thus fall clear of the axle. This resiliency is obtained in large degree in felt of the kind above mentioned, in which the hair fibers (as also those of wool to a lesser extent) are springy and tend to resist compression. By crowding the resilient packing into the lubricant-chambers of the bearings in a crumpled or irregular shape it is obvious that it will not become matted down as the ordinary packing does, but will keep in constant contact with the journals to lubricate the same in an effectual manner at all times.

One of the chief advantages of my packing is the great speed with which a box can be emptied and repacked, owing to the method of stringing or cutting the pieces. It will be obvious that this advantage may be obtained and a packing of considerable efficiency produced by the use of pieces of woven fabric of good absorbent qualities, particularly if these are cut from a sheet made up of several layers of woven fabric secured together, so as when cut to give pieces of considerable thickness. I do not therefore desire to limit myself to the use of a fabric of a particular kind, as any fibrous material may be used, although I prefer felt of the kind above mentioned.

I am aware that felt in a smooth or uncrumpled condition has heretofore been used as a vehicle for supplying oil to bearings, and I do not therefore claim a felt lubricant-packing, broadly.

What I claim is—

As a new manufacture, a packing for car-axle boxes for supplying the lubricant to the bearings, consisting of pieces of felted fibrous material strung or secured together, substantially as described.

E. WAITE.

Witnesses:

WM. A. MACLEOD,
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