

(No Model.)

2 Sheets—Sheet 1.

A. LICHTENHEIN.
FLOOR FOR CAR AXLE BOXES.

No. 529,926.

Patented Nov. 27, 1894.

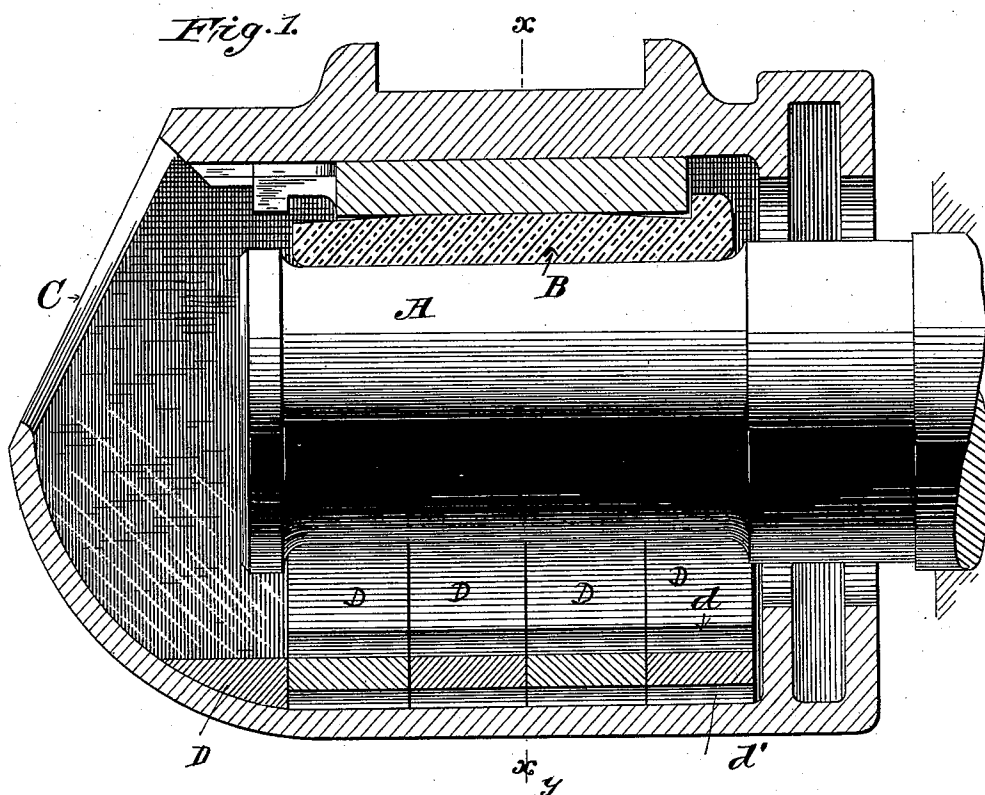
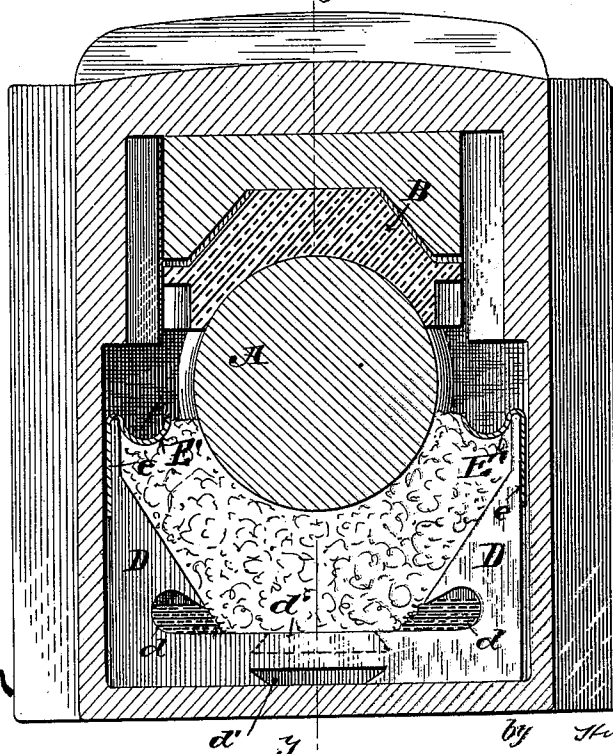


Fig. 2



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by Hubert S. Banning
att'y

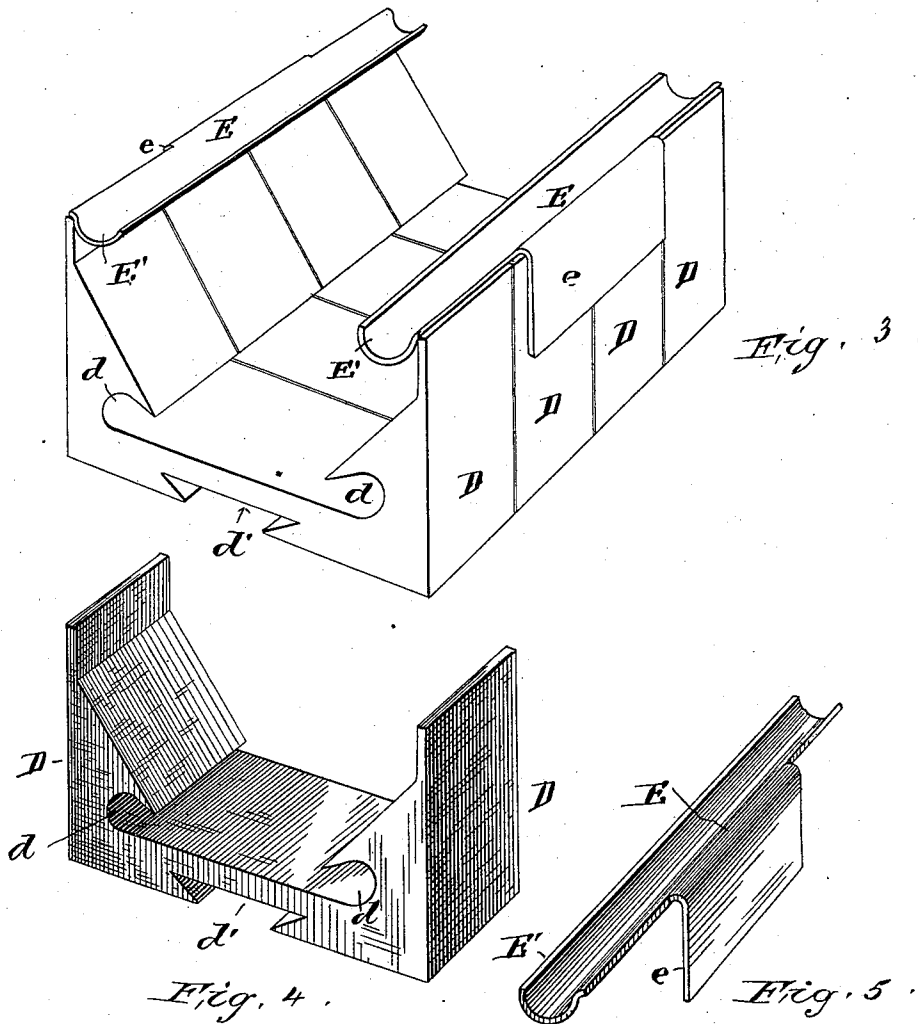
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UNITED STATES PATENT OFFICE.

ABRAHAM LICHTENHEIN, OF NEW YORK, N. Y., ASSIGNOR TO THE DREHER
MANUFACTURING COMPANY, OF SAME PLACE.

FLOOR FOR CAR-AXLE BOXES.

SPECIFICATION forming part of Letters Patent No. 529,926, dated November 27, 1894.

Application filed November 23, 1893. Serial No. 491,715. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM LICHTENHEIN, a citizen of the United States, and a resident of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Floors for Car-Axle Boxes, of which the following is such a full, clear, concise, and exact description as will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Much difficulty has heretofore been experienced in the packing of waste into the car axle boxes for receiving and supplying the lubricant to the journal. It has been the practice to pack waste in the lower part of the car axle-box below the journal, and this waste packing acts as an absorbent and feeds the oil to the journal by capillary attraction. As the axle-boxes have been constructed, however, the waste settles away from the journal and into the remote corners of the box, thus necessitating the use of a large quantity of waste and also a very large quantity of the lubricant. To overcome these objections it has been proposed to construct a car axle-box arranged with its bottom quite close to the axle-journal and provided with sloping side to crowd the oiled waste toward and against the axle-journal; and again it has been proposed to employ a tray fitted in the box and having sloping or inclined side walls and which was also intended to retain the lubricant in the tray. In the first of these constructions the axle-box must be of special design and this alone would tend to prevent its introduction; and, in the second, the tray is difficult to insert and remove if intended for use with the ordinary axle-boxes, and it is also expensive to construct and attach in any proper manner.

The object of my invention is not to construct an axle-box nor to construct a tray for receiving the lubricant; but is to provide what I term a false floor preferably made in sections and having oil runways from front to rear, which floor can be inserted or removed from the axle-box now in general use, and when arranged therein, will accomplish the

objects of keeping the packing nearer the journal and reducing the quantity of lubricant used; and, also, as auxiliary thereto, to provide a device which may or may not be used in connection therewith, as desired, for receiving a cooling compound at a point near the brass of the journal; and the invention consists in the construction and arrangement of the parts and devices as hereinafter more fully described and pointed out in the claims.

In the accompanying drawings Figure 1 is a longitudinal vertical section of a car axle-box having my improvement, and shows also the journal in full and the brass of the box in section. This figure illustrates the relationship of the various parts of the axle-box commonly used, with the additional application of my improvements. Fig. 1 is taken on the line *y y* of Fig. 2, which is a transverse section of the same parts, taken on the line *x x* of Fig. 1. Fig. 3 is a perspective detached view of the sections or blocks which compose the flooring and shows also the device as applied thereto for holding the cooling compound. Fig. 4 is a perspective view of one of the sections or blocks which compose the flooring and Fig. 5 a detached view of the device for the cooling compound.

In the drawings A represents the journal, which is at the end of the car axle, and, B, the brass fitted to the upper part of the journal and being arranged to take the weight of the trucks and car, in the usual manner. The packing of waste, as well as the lubricant, is passed into the box, through a door C, at the outer end of the box. The space below the journal is that which receives the packing and the lubricant, and, in carrying my invention into effect, I make use of such space for receiving blocks D of wood or other suitable material, preferably of the form shown in Fig. 4. The block D as shown may be described as consisting of a base, sides, angle pieces, and a groove or run-way for the lubricant to pass from the front to the rear of the axle-box, but it is not necessary that the sides should be carried up as shown, unless the device for holding a cooling compound be also used. These blocks D are made of a size adapted to enter the axle-box through the door or opening C, at the front, and are pushed

back into the lower part of the box, beneath the journal, as shown in Figs. 1 and 2. The blocks D are each provided with one or more grooves d, d' , so that when placed together, these grooves form a continuous passage for the oil or lubricant to run to the rear of the axle-box and be taken up or absorbed much quicker than if left without such provision. These grooves are of especial advantage inasmuch as the waste is not likely to pack solidly in them. In order to keep these blocks in alignment and to add weight thereto, I can provide a groove d' in the blocks into which a bar may be inserted. Such bar may or may not be used, as desired, and the groove d' may either be on the underside of the box, as shown, or on the upper side as indicated by dotted lines in Fig. 2. The several sections or blocks D, being in place the flooring is finished at the front of the box by a smaller block D shown in Fig. 1, and which is made to conform to the rounding surface of the outer end portion of the axle box.

In some cases it is desirable to apply a cooling compound in order to prevent undue heating and in connection with the blocks D, I may use a device E of metal, or other suitable material, as shown in Fig. 5. The device for holding the cooling compound is provided with a wing or flange e which hangs over the outside of the blocks, and with a concave rest E' for taking the compound in the form of a stick placed at each side of the journal, and not very far removed from the brass or the journal. The purpose of this arrangement is chiefly to guard against hot boxes and to keep a cooling compound in addition to the lubricant which is absorbed by the packing. Of course the specific form of device for holding the cooling compound is not essential.

It will be apparent from an inspection of the drawings that the improvements herein described are exceedingly cheap to manufacture; can be readily applied to the axle-box, and, when so applied, will keep the packing from settling away from the journal; will reduce the amount of the packing used, and will lessen the consumption of the oil or lubricant; while, at the same time, the arrangement is such that the journal will be kept constantly lubricated and cooled so that liability of hot boxes is very greatly diminished. It is also obvious that in the event of any of the blocks giving way, or becoming useless for any reason, they can be readily removed and replaced by new ones, without appreciable loss of time, and, even if no new blocks are at hand, they could be cast aside and the box packed for the time being in the ordinary manner.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A car axle-box flooring composed of sections adapted to be inserted in the box beneath the car-axle journal, said sections being shaped to reduce space for packing and lubricant and prevent the packing from settling away from the journal, substantially as described.

2. A car axle-box flooring adapted to be inserted into the box beneath the car axle journal, said flooring being provided with grooves or runways for the passage of the lubricating oil from the front to the rear of the car axle-box, substantially as described.

ABRAHAM LICHTENHEIN.

Witnesses:

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HUBERT A. BANNING.