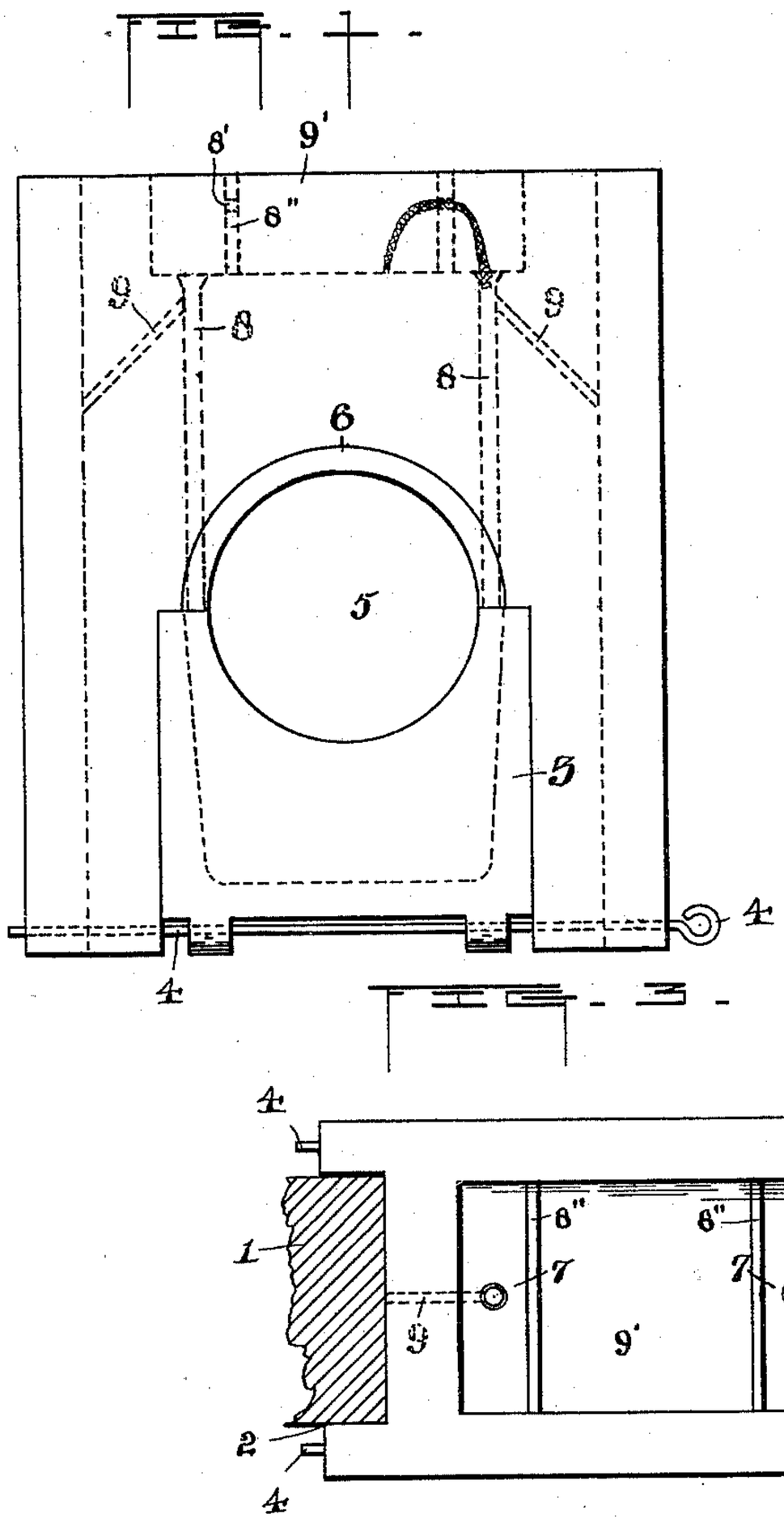
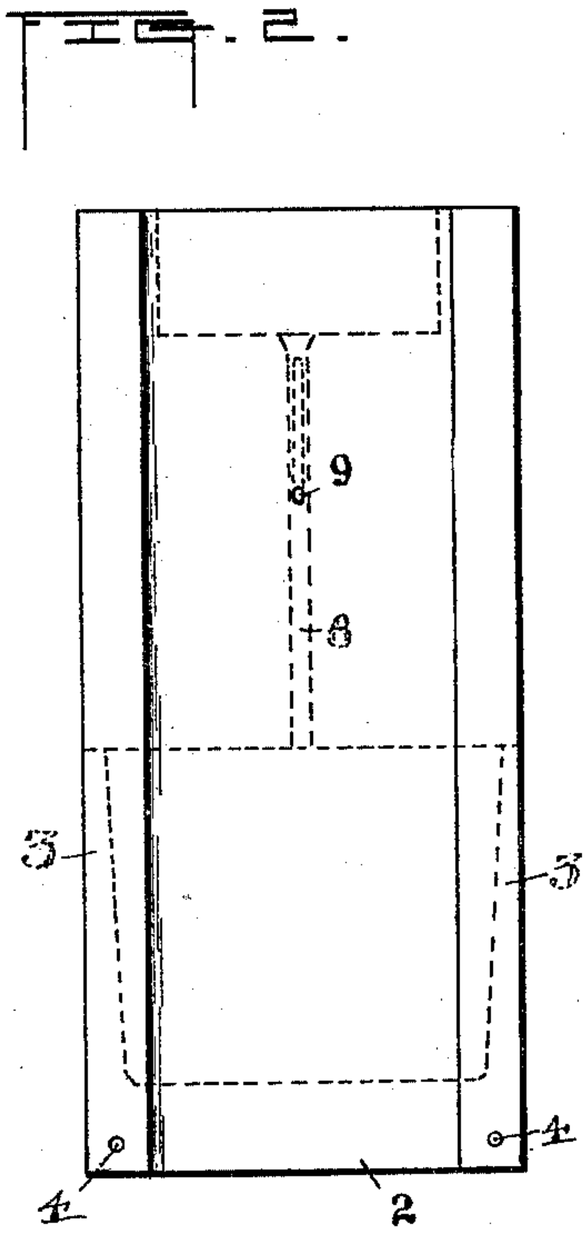
(No Model.)

A. JOHNSON.

AXLE LUBRICATOR.

No. 465,083. Patented Dec. 15, 1891.





WITNESSES

Arch. M. Cattlin.

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INVENTOR

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UNITED STATES PATENT OFFICE.

ALBERT JOHNSON, OF NEWBURG, NEW YORK.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 465,083, dated December 15, 1891.

Application filed July 24, 1891. Serial No. 400,603. (No model.)

To all whom it may concern:

Be it known that I, ALBERT JOHNSON, a resident of Newburg, in the county of Orange and State of New York, have invented certain new and useful Improvements in Axle-Lubricators; and I do hereby 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 pertains to make and use the same.

The invention relates to axle-lubricators such as are suitable for locomotives, and has for its object to provide for lubricating both the axle and the pedestals which guide the box, and also for cooling them when overheated; and it consists in the construction hereinafter described, and pointed out.

In the accompanying drawings, Figure 1 is a side, Fig. 2 an end, and Fig. 3 a plan, view of a locomotive axle-box.

The frame or truck and pedestals or hangers, which are of any desired form, are not shown in the drawings, except that sections of the hangers are represented in Fig. 3. Numeral 1 indicates them. 2 denotes the ways formed in the box to receive the same.

3 denotes a drip-cup or waste-holder held in position by rods 4.

5 denotes an opening for the axle, and 6 a "brass."

7 7 are wells in the top of the box, communicating by means of passages 8 with the drip-cup or waste-receptacle and by perforations 8′ in the partitions 8″ with an inner well or compartment 9′. In practice a wick or the like is placed in the well 9′ and its ends placed in the holes 8′, whereby oil is conveyed from the middle to the outside compartments or wells.

9 indicate branch passages leading from the wells 7 to the ways 2, and adapted to convey oil thereto and to the bearing-faces of the pedestals.

The passages 8 have funnel-shaped mouths, as shown. A fluid introduced into the wells 7 will be conducted to the drip-cup through passages 8 which extend down at the side of the shaft and to the ways near its exterior through the branch passages 9, and by this means both the axles and the ways for the pedestals can be lubricated. In case the box becomes hot, water can be introduced into the wells 7 and passed down through passages 8 to cool the interior of the box. At such times the wicks may be withdrawn from the passages or holes 8′. When it is desired to relubricate the shaft and the ways 2, it is only necessary to extend said wicks from the receptacle 9′ through the openings, it being understood that said receptacle is suitably supplied with oil and waste. This construction thus provides for conveying oil to passages 8 by capillary attraction, and for easily cutting off the oil-supply when it is desired to cool the parts, for which purpose water is poured into the wells 7. When the wicks are passed through holes 8′, they are thereby held in the well 9′ and cannot easily be thrown out.

I am aware that oil and waste receptacles have been arranged to communicate with journal-bearings by means of wicks extending to said bearings. In my construction oil passes by capillary attraction from the central well 9′ through the perforations 8′ into the adjacent wells, from which it flows freely to the bearing. In case it is desired to introduce water to cool a hot box the wick or waste, which simply extends through the partition from the central well does not interfere with the operation. The partition prevents water from getting into well 9′, and the wick can be left in the perforation in the same.

I do not claim, broadly, providing oil or waste receptacles communicating by passages with journal-bearings, but the special construction hereinafter pointed out.

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

1. An axle-box for a locomotive, provided with a central well or receptacle 9′ for oil and waste located above the bearing and having adjacent wells, one on each side, separated from that first named by a perforated partition-wall provided with passages adapted to contain wicks and leading to the axle-bearing, whereby the bearing can be cooled by water without danger of introducing water into the main oil-well, substantially as set forth.

2. An axle-box for a locomotive, having ways for pedestals provided with a central well or receptacle 9′ for oil and waste located above the bearing and having adjacent wells, one on each side, separated from that first named by a perforated partition-wall provided with passages adapted to contain wicks and leading to the axle-bearing and to the ways for the pedestals, whereby the bearing and ways can be cooled by water without danger of introducing water into the main oil-well, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALBERT JOHNSON.

Witnesses:
ABRAM S. CASSEDY,
REEVE KETCHAM.