

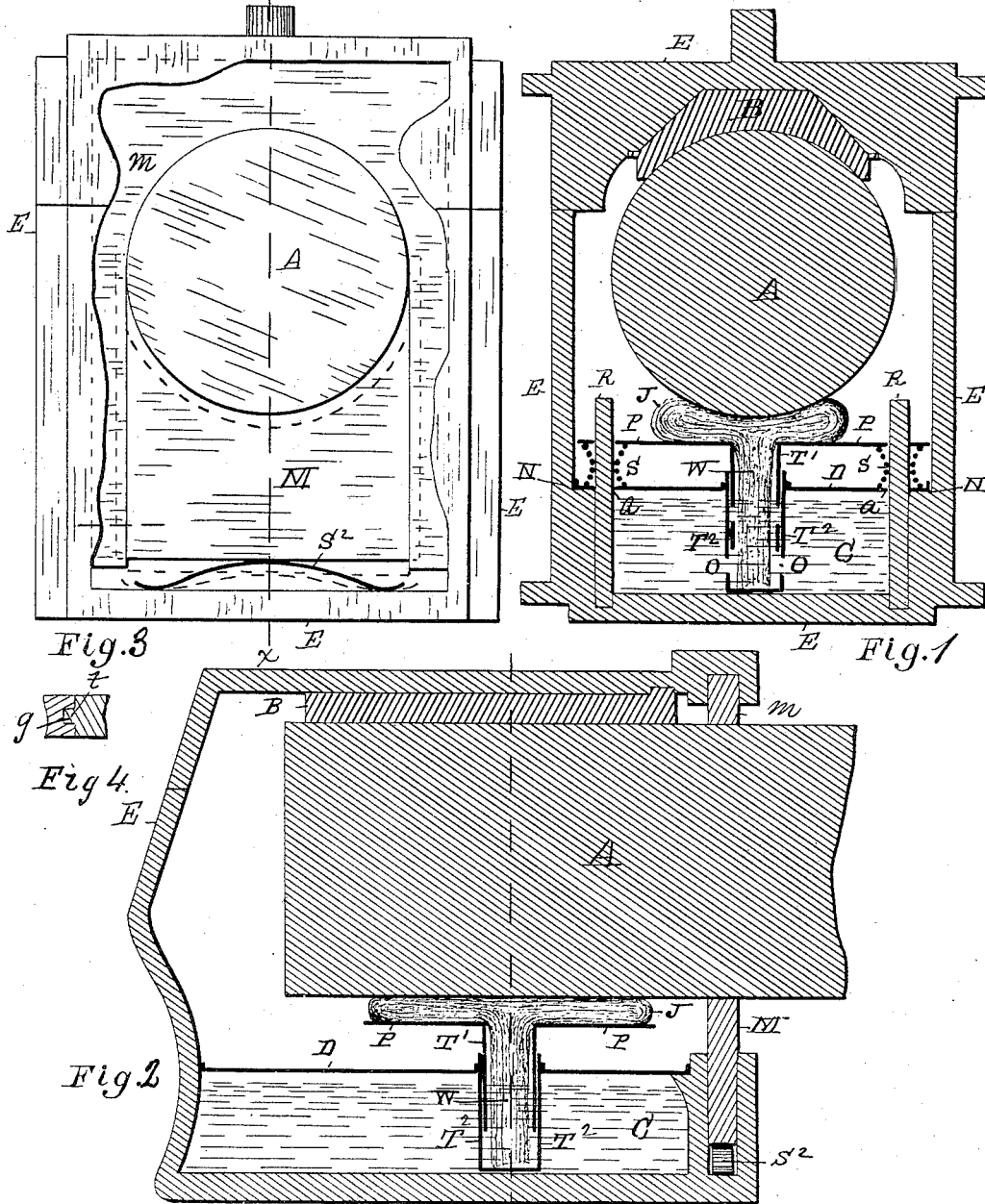
(No Model.)

J. JOHNSON & A. HANSEN.

CAR AXLE OILER.

No. 307,467.

Patented Nov. 4, 1884.



Witnesses:

Inventors

Charles S. Brintnall

John Johnson

Andrew Hansen

Stanley M. Holden.

by W. E. Wagon their atty

# UNITED STATES PATENT OFFICE.

JOHN JOHNSON AND ANDREW HANSEN, OF TROY, NEW YORK.

## CAR-AXLE OILER.

SPECIFICATION forming part of Letters Patent No. 307,467, dated November 4, 1884.

Application filed March 28, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN JOHNSON and ANDREW HANSEN, residents of the city of Troy, county of Rensselaer, and State of New York, have jointly invented a new and useful Improvement in Oilers for Car-Axles, of which the following is a specification.

Our invention relates to that class of devices which are used to supply oil or lubricating-liquid to the axles of railway-cars; and our invention consists, as will be more fully detailed hereinafter in connection with its illustration, in the combination, with an inclosure constructed to receive the bearings of an axle, of an oil-chamber to receive and contain oil or other lubricating-liquid; a wick-tube leading from said oil-chamber, to receive and convey, by means of a wick placed in said tube, oil or lubricating-liquid therefrom; a flat plate on the end of the wick-tube, to receive and support waste felt or other oil-distributing material connected with the wick and to apply the oil drawn up by the latter to the axle; springs on the under side of said plate, to force said plate and the oil-distributing material thereon up against the axle; a sliding gate and spring at the end of the inclosure, actuated to close around said axle to keep dust and dirt from entering the axle-bearing inclosure, and, as will be designated in the claim, the sub-combination of the said parts where, as such, they perform specific function.

Accompanying this specification, and forming a part of it, there is a sheet of drawings containing four figures illustrating our invention, with the same designation of its parts by letter reference used in all of them. Of these illustrations, Figure 1 shows a cross-section taken through the axle-bearing inclosure or box, the axle, axle-bearing, the oil-chamber, wick, wick-tube, supporting-plate, the distributing waste or felt on the plate, the guide-rods for said plate, and the spiral springs on the guide-rods. Fig. 2 is a longitudinal vertical section taken through the axle-bearing inclosure, the axle, axle-bearing, oil-chamber, wick, wick-tube, the plate on top of the wick-tube, the distributing felt or waste on the plate, and sliding end-gate and spring. Fig. 3 shows an end elevation of the axle-bearing

box or inclosure, with that part of its front wall which subtends the sides and bottom of the sliding gate in part removed or broken out to show the movement of the sliding end-gate as actuated by a leaf-spring. Fig. 4 shows a section taken on the line *xx* of Fig. 3, illustrating the manner of making the gate slide.

The several parts of the apparatus are designated by letter reference, and their function is explained as follows:

The letters E designate the axle bow or inclosure; A, the axle; B, the loose bearing; T, the sliding part of the wick-tube, and P the supporting-plate, which is attached to the sliding part of the wick-tube.

The letter T<sup>2</sup> designates the fixed part of the wick-tube, and in which the sliding part of the wick-tube is adapted to telescopically move.

The letter W indicates the wick, adapted to be inserted with one end within the oil in the chamber C, and the upper end connected to and with a mass of felt or waste that is in contact with the axle, as indicated at J, and upon the supporting-plate P.

The letters O indicate openings leading from the stationary part of the wick-tube into the oil-chamber C, and the letters R designate guide-rods for the plate P, which rods are attached to the sides and bottom of the inclosure or box, and are arranged to pass upwardly through apertures *a*, made in the plate.

The letter D indicates a cover for the oil-chamber C, and to which the stationary part of the wick-tube is attached.

The letters N designate a shelf or ledge produced on the interior sides of the box or inclosure, for the support of the said cover D.

The letters S indicate spiral springs encircling the guide-rods between the supporting-plate P and the cover D, said springs in part resting on the latter where immediately over the ledge or shelf N.

The letter M indicates an end sliding door or plate, which on its upper edge is rounded out to fit the axle, and at its sides is made to slide with a grooved connection in the end of the box or inclosure, said sliding engagement being produced by the groove *g* in the sides of

the end opening and the tonguing-rib *t* on the sides of the said door or gate.

The letter *S*<sup>2</sup> designates a leaf-spring arranged between the bottom of the sliding end door or plate and the bottom of the adjacent end of the box or inclosure, so that the said door or plate is forced by the said spring to be in contact with said axle where said plate is rounded out at its top, the end of the box or inclosure immediately above the said sliding plate *M* being stationary, said upper part being indicated at *m*.

The parts thus constructed and arranged operate as follows: The oil being put in the chamber *C*, with the end of the wick *W* inserted therein, the oil is soaked up by the wick and communicated to the mass of waste or felt *J* on the upper surface of the plate *P*, whereon it is applied to the axle. The plate *P*, through its connection made with the stationary part of the wick-tube by means of the sliding part *T'* of the latter, when acted upon by the recoil force of the springs *S*, keeps the oiled waste or felt *J* in a compressed contact with the axle, so that oil is being constantly applied to it as it revolves, and without any waste or loss. The sliding plate *M*, as rounded out at the top, is forced to make a close contact with the axle by the action of the spring *S*<sup>2</sup>, which prevents dust and sand from entering the box.

By the use of our invention a great saving of oil is effected, and the axle is constantly and uniformly supplied with oil. Having a capacity to hold oil enough to last for a long

time, it requires much less attention than the ordinary appliances in use for the same purpose.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a car-axle box, the combination of an oil-chamber arranged in the bottom thereof, a wick-tube and wick in communication with said oil-chamber, as shown, a sliding tube within said wick-tube, a plate connected to the top of said sliding tube, waste or felt upon the upper surface of said plate and arranged to be in contact with the top of said wick, and springs between the said plate and the top of the oil-chamber, with said parts arranged to operate substantially in the manner as and for the purposes set forth.

2. The combination of the oil-chamber *C*, the oil-chamber cover *D*, the sliding wick-tube *T'*, the stationary wick-tube *T*<sup>2</sup>, the plate *P*, and the springs *S*, with said parts arranged and constructed to operate substantially in the manner as and for the purposes set forth.

Signed at Troy, New York, this 20th day of March, 1884, and in the presence of the two witnesses whose names were by them hereto written.

JOHN JOHNSON.  
ANDREW HANSEN.

Witnesses:

CHARLES S. BRINTNALL,  
WILLIAM C. BUELL.