

J. H. COVEL.  
Car-Axle Box.

No. 215,508.

Patented May 20, 1879.

Fig. 2.

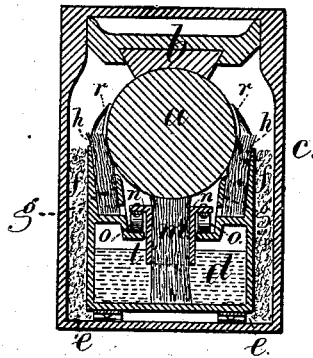


Fig. 1.

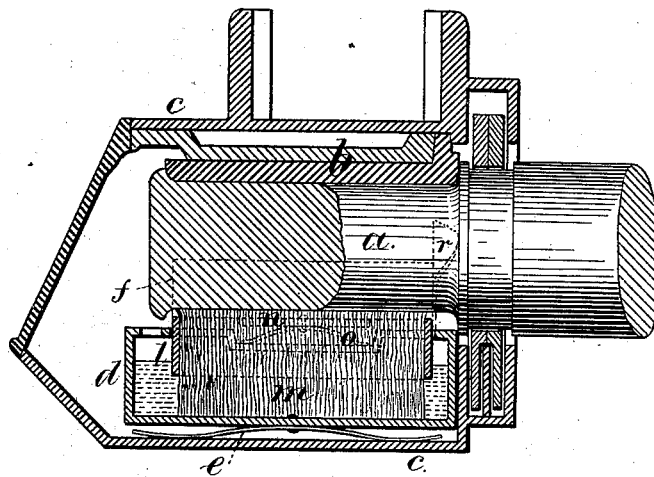
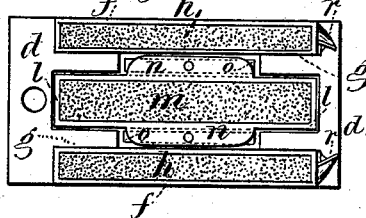


Fig. 3.



Witnesses.

Chas. H. Smith  
Geo. V. Pinckney

Inventor

James H. Covel.  
for Lemuel W. Serrell atty.

# UNITED STATES PATENT OFFICE.

JAMES H. COVEL, OF NEW YORK, ASSIGNOR TO HIMSELF AND GIBBONS L. KELTY, OF BROOKLYN, N. Y.

## IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **215,508**, dated May 20, 1879; application filed October 22, 1878.

*To all whom it may concern:*

Be it known that I, JAMES H. COVEL, of the city and State of New York, have invented an Improvement in Car-Axle Boxes, of which the following is a specification.

I make use of an oil-vessel that is separate from the axle-box and is pressed toward the axle by a spring or springs beneath the same. This box has side wiping-pads, that serve to remove surplus oil, and also to clean the journal from dust and dirt. The surplus oil is returned to the oil-vessel. There is also a lubricating-pad within a case that is provided with springs, to raise up said case and keep it in contact with the journal. Oil that usually would run along the shaft and pass to the wheel is scraped off and returned to the oil-vessel.

In the drawings, Figure 1 is a longitudinal section of the improved axle-box. Fig. 2 is a cross-section of the same, and Fig. 3 is a plan of the oil-vessel detached.

The journal *a*, bearing *b*, and axle-box *c* are of any usual construction; but the box is adapted to receive within it the oil-vessel *d*, that has beneath it one or more springs, *e*, that tend to lift the same.

The sides of the oil-vessel are extended up at *f*, and provided with an inner casing, *g*, between which parts *f* and *g* there is a wiper, *h*. There is one of these wipers at each side above the oil-vessel; hence as the oil-vessel is raised by its springs the wipers come into contact with the journal and remove surplus oil or dust, and the oil that may accumulate in or upon these wipers passes down and runs from the bottom of the wipers back into the oil-vessel *d*. This oil-vessel is open at its upper surface, and receives into it the case *l*, that is in the form of an oblong tube, containing the section of thick felt *m*, or other suitable material, that will act to convey oil up to the under side of the journal.

At the sides of this case *l*, near the upper edges, there are flanges *n*, occupying recesses

in the surface of the oil-vessel *d*, near each side of the top opening. These flanges *n* sustain the case *l* and oiling-pad *m*, and there are springs *o* beneath the said flanges *n*, that serve to raise the case *l*, and with it the pad *m*, so as to maintain contact between the same and the journal.

Spring-scrapers *r*, at each side of the inner or back part of the journal, press against such journal and scrape the oil off, and prevent the same passing to the dust-plates or out upon the wheel. The ends of these spring-scrapers should be inclined or wedge-shaped, so as to force the oil toward the wipers *h*, and return the same to the oil-vessel.

Fibrous material may be inserted between the oil-vessel and the inside of the axle-box, to prevent the box being displaced by the motion of the truck and frame.

I claim as my invention—

1. The combination, in a car-axle box, of a separate oil-vessel, *d*, springs *e*, oblong case *l*, provided with flanges *n*, and the felt wick *m*, substantially as and for the purposes set forth.

2. The separate oil-vessel *d*, within the axle-box, in combination with the casings *f g*, extending upward from said oil-vessel *d*, and the wipers *h* at each side of the journal and between the said casings *f g*, substantially as and for the purposes set forth.

3. The lubricating-pad *m* and its case *l*, in combination with the separate oil-vessel *d* and the springs *o*, to raise the lubricating-pad, substantially as set forth.

4. The combination, with the axle and box, of spring-scrapers applied at the inner end of the journal and the oil-vessel with which they are connected, substantially as specified.

Signed by me this 12th day of October, A. D. 1878.

JAMES H. COVEL.

Witnesses:

GEO. T. PINCKNEY,  
CHAS. H. SMITH.