

D. PINNEY.  
Car-Axle Box.

No. 215,021.

Patented May 6, 1879.

Fig. 1.

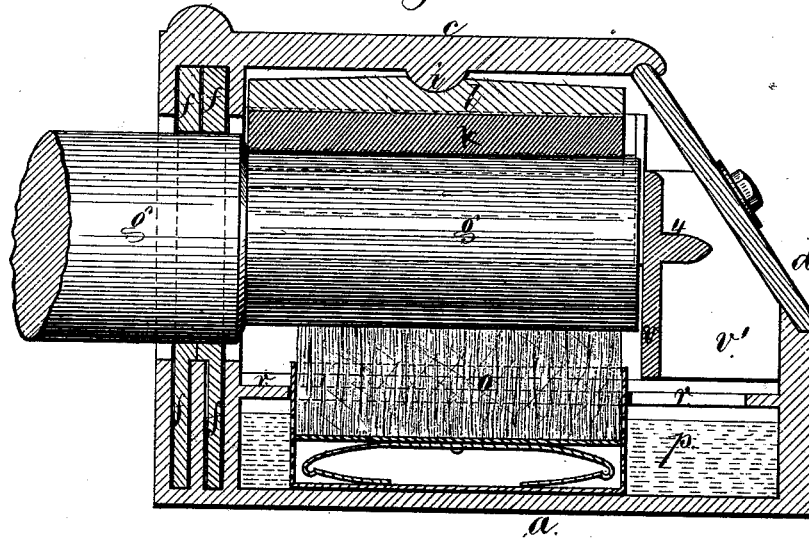


Fig. 2.

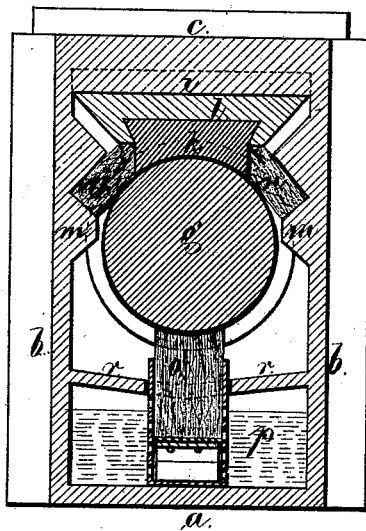
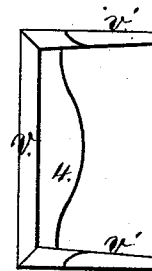


Fig. 3.



Witnesses  
Harold Serrell.  
Chas H. Smith

Inventor:  
David Pinney  
per. Lemuel W. Serrell atty.

# UNITED STATES PATENT OFFICE.

DAVID PINNEY, OF BROOKLYN, NEW YORK, ASSIGNOR TO GIBBONS L.  
KELTY, OF SAME PLACE.

## IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **215,021**, dated May 6, 1879; application filed  
September 20, 1878.

*To all whom it may concern:*

Be it known that I, DAVID PINNEY, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Axle-Boxes, of which the following is a specification.

Axle-boxes have been made with a check-plate at the end of the journal, to prevent thrust upon the collar of the journal, and there has been an oil-space in the bottom of the box, and an elastic pad to transfer the lubricating material to the under side of the journal, as in Letters Patent Nos. 191,901 and 184,806.

My present invention relates to the combination, with the check-plate, of side wings that are formed upon the same, and extend to the front part of the box, and take a bearing against or near the inner surface of the same, thereby strengthening the check-plate, and causing it to retain its position in the box without the necessity of employing ribs upon the inner surfaces of the box.

In the drawings, Figure 1 is a longitudinal and vertical section of the box. Fig. 2 is a vertical cross-section, and Fig. 3 is a detached plan of the check-plate.

The box is formed of the bottom *a*, sides *b*, roof or top *c*, and it is of usual character, having the guide-ribs for the hangers and the end cap, *d*, and there is also a receptacle at the back end for the dust-plates *f*, that surround the axle *g* near the inner end of the journal.

There is within the axle-box a bearing, *k*, and a keep-plate, *l*, somewhat similar to those in aforesaid patent; but there is a central bearing, *i*, in the under side of the roof of the box for the keep, there being a groove in said keep transversely to the same, so that it may accommodate itself to the journal. There are also check-pieces *m* and elastic fibrous pads *n*, as in aforesaid patent; or said pads may be of any suitable material.

The lubricating-pad *o* passes from the oil-well *p* up to the under side of the journal. It is pressed up by a spring or other suitable means, and is guided by a perforated case that contains said pad and spring; and there is a deck or diaphragm, *r*, that closes over the oil-well and surrounds this pad, to exclude dust and to prevent the oil being thrown out of the well by the concussion and shaking to which the box is subjected.

The check-plate *v* is of a width to pass freely within the front end of the box, and it is provided with wings or side plates, *v'*, and a cross-rib, *4*. These wings are beveled, so as not to interfere with the removable cap, and they take a bearing against the inside of the box below said cap *d*. This renders it unnecessary to employ guide-ribs inside the box, and gives more space for the removal of the bearing or keep, and the end-thrust is taken directly against the front part of the box.

I am aware that the keep or bearing has been made convex, so as to rock and accommodate itself to the journal; but in this case the length of the bearing at each side of the point of contact was varied by the rocking movement, and uniformity of pressure prevented. In my journal-box the weight rests in the groove of the keep and remains uniform throughout the bearing.

I claim as my invention—

The check-plate made with the side wings extending forward, in combination with the axle-box, against the front part of which said wings take a bearing, substantially as set forth.

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

DAVID PINNEY.

Witnesses:

HAROLD SERRELL,  
WILLIAM G. MOTT.