J. PARKER.

Guard for Car-Axle Boxes.

No. 208,331. Patented Sept. 24, 1878.

Fig: 1.

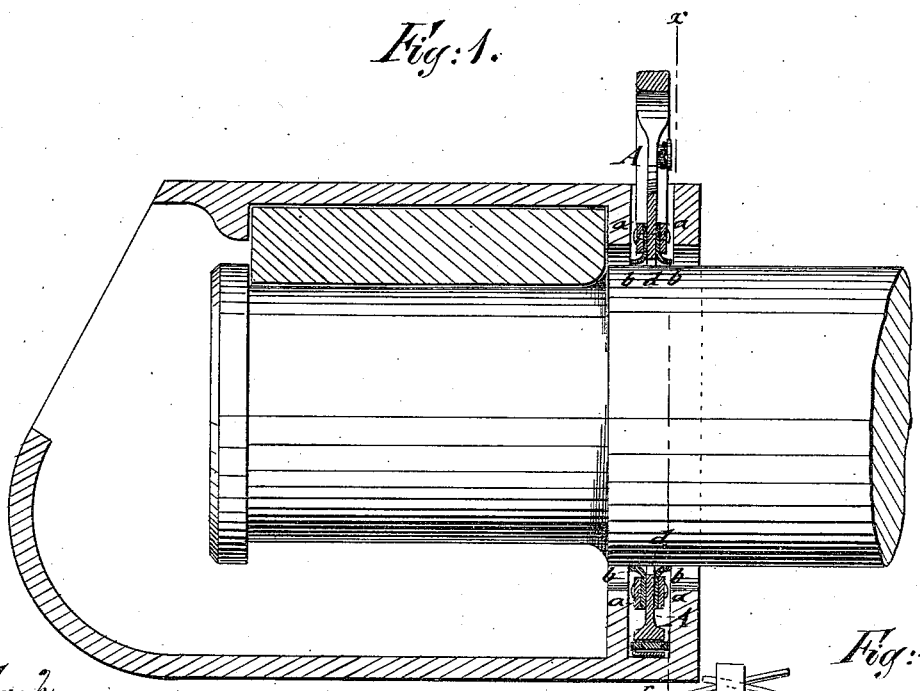


Fig: 2.

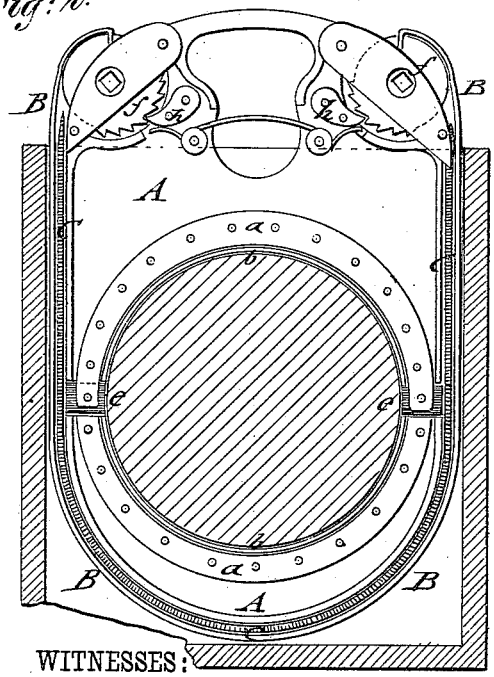
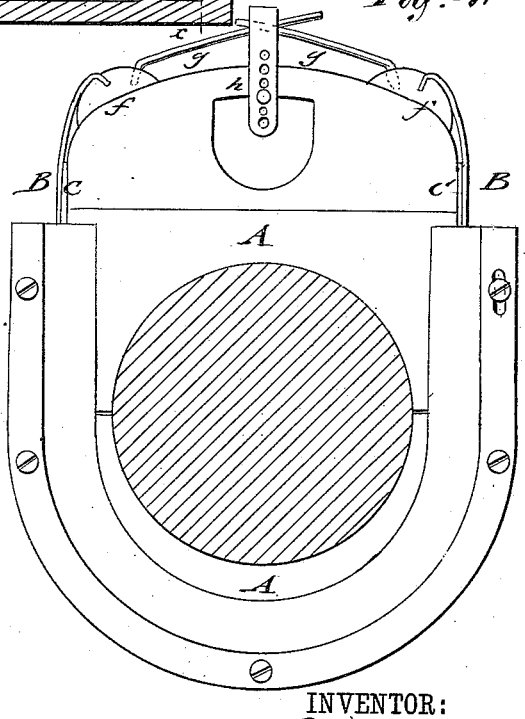


Fig: 4.



WITNESSES:

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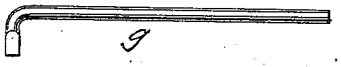
C. Sedgwick

Fig: 3.



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UNITED STATES PATENT OFFICE.

JAMES PARKER, OF DETROIT, MICHIGAN.

IMPROVEMENT IN GUARDS FOR CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **208,331**, dated September 24, 1878; application filed August 17, 1878.

To all whom it may concern:

Be it known that I, JAMES PARKER, of Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Guard for Car-Axle Boxes, of which the following is a specification:

In the accompanying drawings, Figure 1 represents a vertical longitudinal section of a car-axle box with my improved oil and dust guard, and Fig. 2 is a vertical transverse section on line *x x* of Fig. 1. Fig. 3 is a detail view of the ratchet-setting key, and Fig. 4 an elevation of a modified form of guard.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved guard for car-axle boxes, by which not only a considerable percentage of the oil lost with the present axle-boxes is saved, but also the entrance of dust and the rapid wear of the journal and brass bearings prevented.

The invention consists of a guard for car-axle boxes that is made of two sections, which are fitted by semicircular recesses with leather washers and intermediate packing to the car-axle, and applied tightly to the axle by an encircling strap and tightening mechanism, a packing being interposed between the outer edges of the sections and the straps to hold the guard tightly in the guide-walls of the box.

Referring to the drawings, A represents a dust and oil guard that is guided between the rear wall of the car-axle box and an interior wall of the same, so as to be tightly retained in position. The guard A is made of two sections, of brass or other metal, which fit by semicircular recesses around the car-axle near the point where the same passes through the opening in the rear wall of the axle-box. To both sides of the guard-sections are riveted, by sheet-metal bands *a*, leather or rubber washers or flanges *b*, between which a packing, *d*, of cotton-flannel is interposed. The ends of one guard-section are provided with rubber blocks *e*, against which the ends of the other section bear, so as to form a cushioning joint therewith. A sheet-metal strap, B, extends around the circumference of the lower guard-section, and up along the sides of the upper section, the strap being attached to pulleys or ratchets *f*, and tightened by turning the pulleys by means of levers or keys *g*, and retaining them by spring-pawls *h*, or other equivalent mechanism, as shown in Fig. 4. Between the edges of the guard-sections and binding-strap B is placed a continuous strip, C, of packing that is dipped into a hot solution of tallow, beeswax, flour, and oil, and made to project at both edges of the strap, so as to form, by compression with the walls of the box, a perfectly tight joint. The inner circular packing thus prevents the escape of oil around the axle, and the outer packing the escape of oil from the box, while keeping at the same time, in connection with the strap, the guard firmly in position. When the axle-box is placed on the journal and the guard clamped tightly around the axle, a perfectly oil and dust tight joint is obtained, that prevents the loss of oil, and admits a longer wear of the brass bearing without interfering with the lateral motion of the axle.

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

In a dust and oil guard for car-axle boxes, the combination of the upper guard-section, having semicircular recess with elastic washers or flanges, intermediate packing, and cushioning end blocks, with the lower guard-section, having washers and packing, and with an encircling strap and mechanism for tightly stretching the strap and pressing the guard-sections around the axles, substantially as specified.

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Witnesses:

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