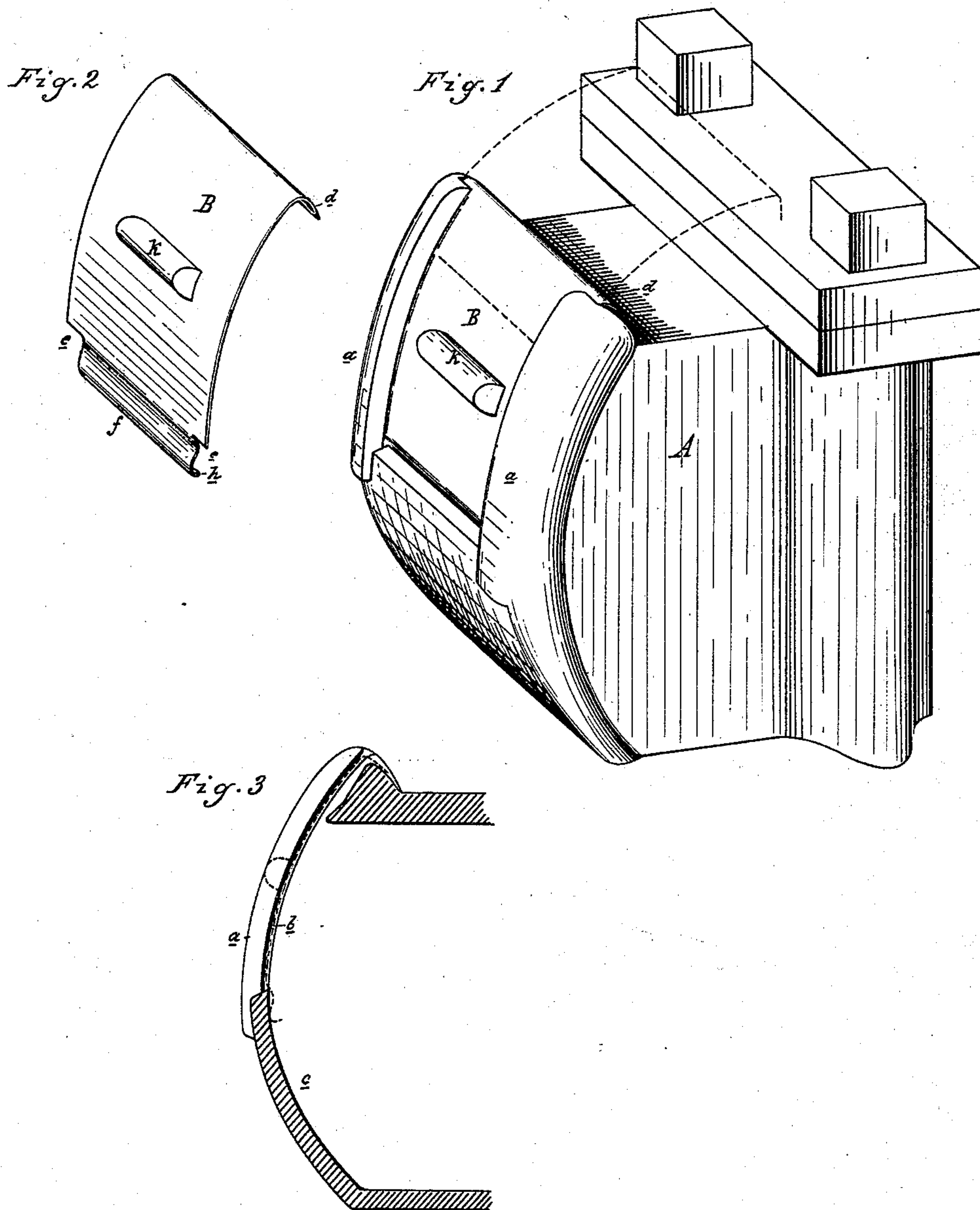


A. P. CASE,
Lid for Car-Axle Boxes.

No. 218,928.

Patented Aug. 26, 1879.



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UNITED STATES PATENT OFFICE.

ANDREW P. CASE, OF DETROIT, MICHIGAN.

IMPROVEMENT IN LIDS FOR CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **218,928**, dated August 26, 1879; application filed May 24, 1879.

To all whom it may concern:

Be it known that I, ANDREW P. CASE, of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in Railway Axle-Boxes, of which the following is a specification.

The nature of my invention relates to certain new and useful improvements in the construction of railway axle-boxes, by means of which they are made oil-tight, and the cover is prevented from having a vertical play, and from becoming accidentally displaced, and at the same time the box will be dust-tight when the cover is in place.

The invention consists in the construction of the various details by means of which the above-named results are produced.

In the drawings, Figure 1 is a perspective view, showing the cover in place, and in dotted lines its position when the box is opened for any purpose. Fig. 2 is a perspective view of the cover detached. Fig. 3 is a section of the box, showing the segmental groove in which the box-cover slides.

In the accompanying drawings, which form a part of this specification, A represents an axle-box of the usual construction, except that the front thereof is partially circular in form, as shown, and provided with segmentally-shaped ribs *a*, the interior faces of these ribs being provided with similarly-shaped grooves or channels *b*, with their lower ends terminating at the top of the semicircular plate *c*, which forms the permanent front of the lower part of the box.

B is a cover, made of any suitable material, but preferably of sheet-steel, struck up into the segment of a circle of the same radius as are the ribs *a* and channels *b*, and of suitable size to slide in said channels and cover the opening into the box. This cover has a flange, *d*, at its upper end, which, when the cover is in place, will rest upon the top of the box, to the exclusion of dust. The lower corners of this cover are cut away or notched, as at *e*, and the lower end is corrugated, as shown at *f*, and terminates in an inward curve, *h*. Firmly secured to the front of this cover is the lug *k*.

In practice, the sides of this cover slide in

the channels *b* until their cut-away lower corners rest in the lower ends of said channels, while the curve *h* and the adjacent corrugations form a spring and guide, which compel the lower end of the cover to pass inside the upper edge of plate *c*. This arrangement forces the oil which the operation of the train may throw against the inside of the cover to drip into instead of out of the box, the latter of which is the usual result. A blow of the hammer on the lug readily drives the cover to place, and a blow against the under side of the lug as readily disengages it and allows it to be raised.

As the vibration of a train has a tendency to vertically shake the axle-box covers, and at times to throw them out of their seats, I have adopted the semicircular form of cover and guiding and holding channels, as described, in order to counteract the tendency to which I allude.

The benefits to be derived from the use of my invention are manifold, and among them are: my box is dust and oil tight, the cover cannot be accidentally thrown out of its seat and lost, and it will not rattle.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A car-axle-box cover semicircular in form, as shown, and provided at its upper end with a rearwardly or inwardly projecting flange, in combination with a convex front of an axle-box provided with semicircular grooves, substantially as and for the purposes set forth.

2. In combination with an axle-box having a convex front, substantially as described, a semicircular cover provided at its lower end with an inwardly-turning curve, substantially as and for the purposes specified.

3. A car-axle-box cover, as a new article of manufacture, semicircular in form, and provided with a rearwardly-projecting flange at top and a rearward curve at bottom, substantially as described.

ANDREW P. CASE.

Witnesses:

H. S. SPRAGUE,

CHAS. THURMAN.