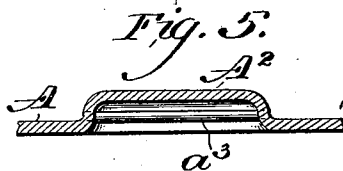
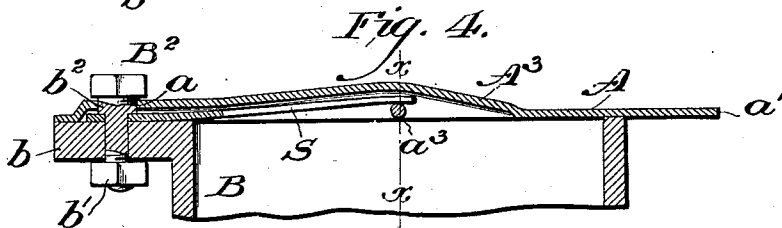
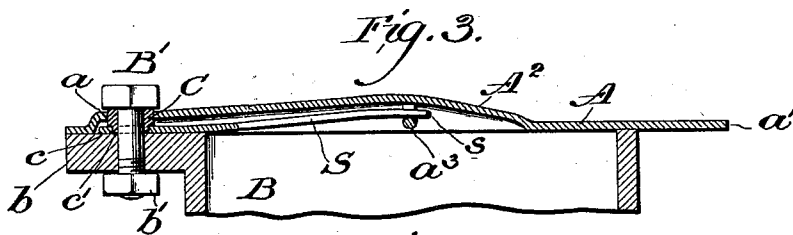
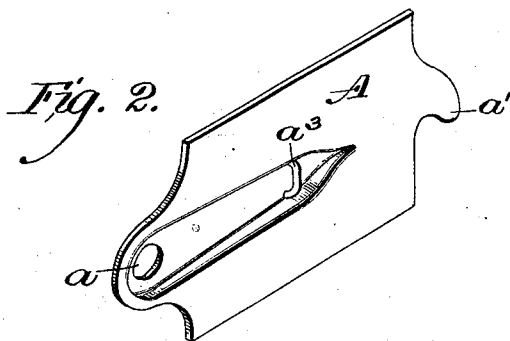
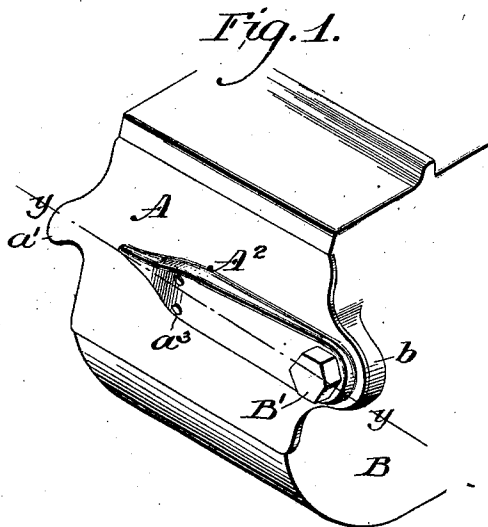


(No Model.)

N. H. DAVIS.
LID FOR CAR AXLE BOXES.

No. 521,232.

Patented June 12, 1894.



WITNESSES:

David Williams;
Edw. F. Ayres.

INVENTOR:

Nathan H. Davis
by his atty.
James J. Chambers

UNITED STATES PATENT OFFICE.

NATHAN H. DAVIS, OF PHILADELPHIA, PENNSYLVANIA.

LID FOR CAR-AXLE BOXES.

SPECIFICATION forming part of Letters Patent No. 521,232, dated June 12, 1894.

Application filed April 14, 1893. Serial No. 470,306. (No model.)

To all whom it may concern.

Be it known that I, NATHAN H. DAVIS, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful Improvement in Lids for Car-Axle Boxes, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to lids for axle boxes, particularly to axle boxes of railway cars, and has for its object to provide a cover which shall be easily made, securely held on the box when closed, and formed without openings in it through which dust and dirt can enter or oil escape.

My invention is best explained by reference to the drawings showing a lid embodying my invention, and in which—

Figure 1, is a perspective outside view of my improved lid secured to an axle box. Fig. 2 is a perspective inside view of the lid. Fig. 3 is a sectional view on lines *yy* of Fig. 1. Fig. 4 is a view similar to Fig. 3 showing a modification, and Fig. 5 is a view on the line *x-x* of Fig. 4.

A is my improved lid formed with a pivot hole at *a* and preferably with a swell or bulge at *A*² which as shown deepens gradually from the pivot hole to the place where the spring socket is formed, though this construction of the swell is simply for convenience. At a suitable distance from the pivot hole *a* a socket is formed wholly on the inside, and preferably near the middle of the lid, and while any convenient socket may be arranged I prefer to form it by means of a strap or stirrup *a*³ as best shown in Fig. 3. Through the pivot hole *a* in the construction shown in Fig. 3 is passed a collar C having a flange at *c* which neatly fits the pivot hole *a* excluding dust and so on, but not impeding in any way the turning of the lid.

Around a narrow part *c'* of the collar is placed a spring S one end *s* of which is adapted to be secured in the socket in the inside of the lid and the other end of which is secured firmly against the face of the projection on the axle box B by a bolt B' which passes through the collar C and is secured by a nut *b'*. The collar *c* is very conveniently used for holding the spring to the face of the axle box but it is of course obvious that a special bolt

formed, as shown at B² Fig. 4, with a collar *b*² made integral therewith, could be used instead of an ordinary bolt and a removable collar. The removable collar placed around an ordinary bolt is however, preferred for the sake of economy. The strap *a*³ which forms the socket for the end *s* of the spring instead of being U shaped as shown in Fig. 3 may be made straight as shown in Figs. 4 and 5 and riveted through the sides of the bulge *A*².

In operation the spring being placed in position in the lid as shown in Fig. 2 the lid is placed on an axle box as shown in Fig. 3 and the bolt B' is secured through the pivot hole by means of the nut *b'*. This holds the spring tightly against the face of the box and the spring holds the lid closed, two flanges *b*² *b*² being arranged as shown to prevent any accidental displacement owing to jarring. To open the box, the lid is slightly pulled outward by means of the latch *a'* and turned out of the way in the usual manner.

Among the advantages resulting from the use of my construction is the even pressure of the lid on the box both at the front and the rear which results from the position of the spring socket whereby the spring exerts its pressure at substantially the middle point of the lid instead of at the pivoted point or the extreme front as is usual. It will be noticed that the head of the bolt B' forms a stop to limit the outward movement of the lid A so that it is impossible to overstrain the spring S in opening the lid.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As an article of manufacture, an axle box lid formed with a pivot hole as *a* said lid having a socket formed wholly on the inside of the lid, whereby the end of the spring may be held between the upper side of the socket and the inner side of the cover.

2. As an article of manufacture, an axle box lid formed with a pivot hole as *a* said lid having a socket formed wholly on the inside and substantially at the middle of the lid, whereby the end of the spring may be held between the upper side of the socket and the inner side of the cover.

NATHAN H. DAVIS.

Witnesses:

EDW. F. AYRES,
D. STEWART.