

(No Model.)

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

No. 521,231.

Patented June 12, 1894.

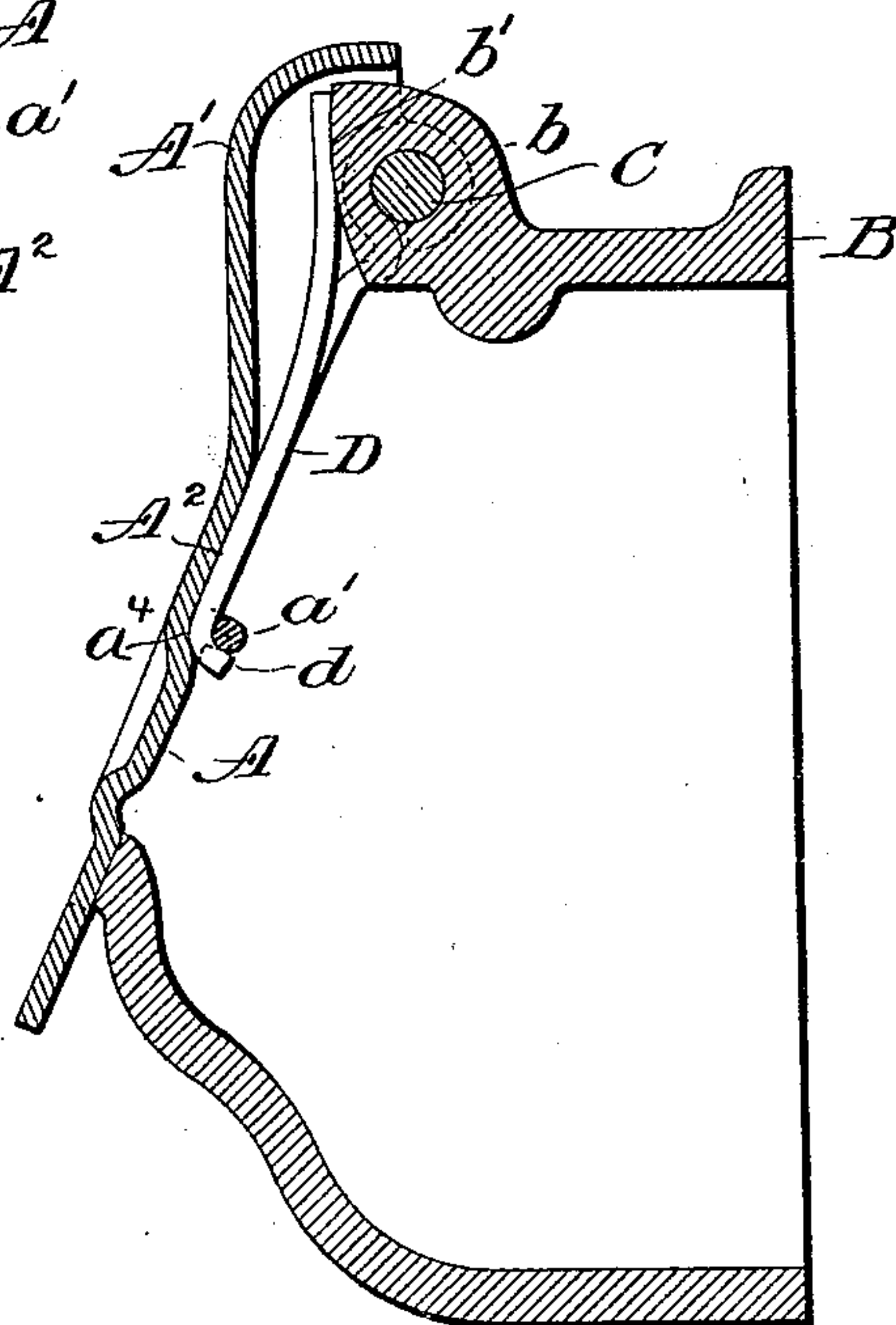
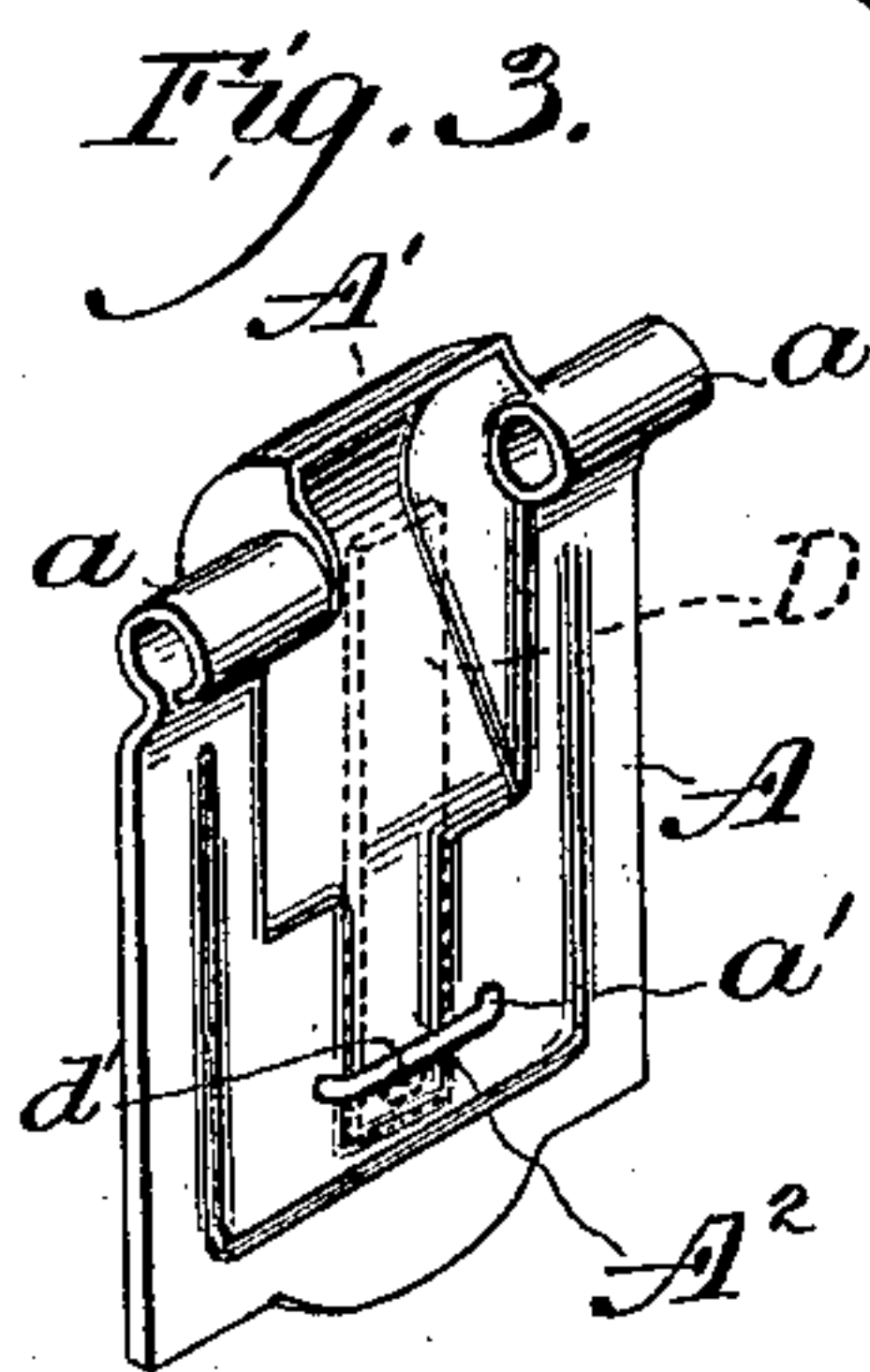
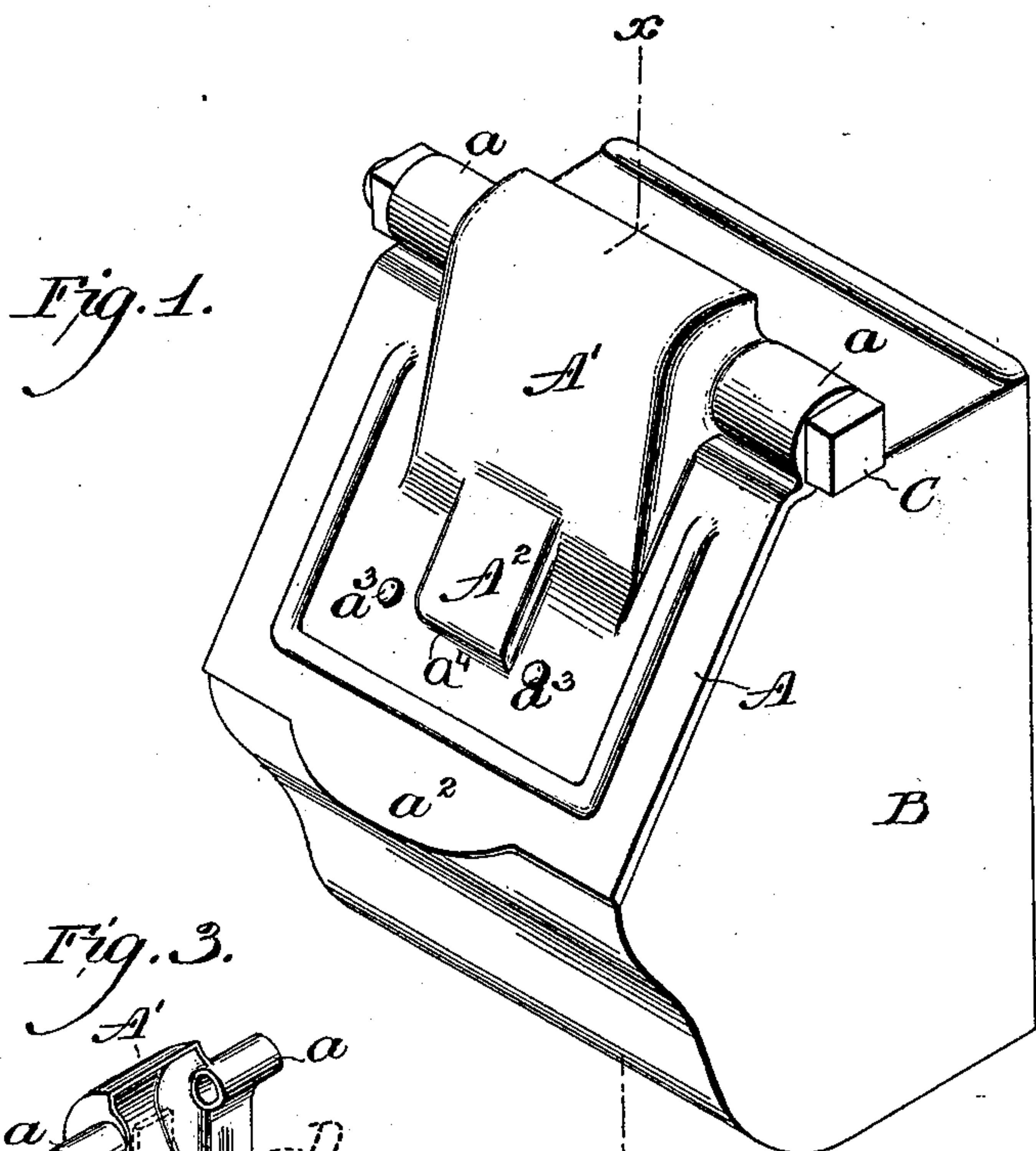
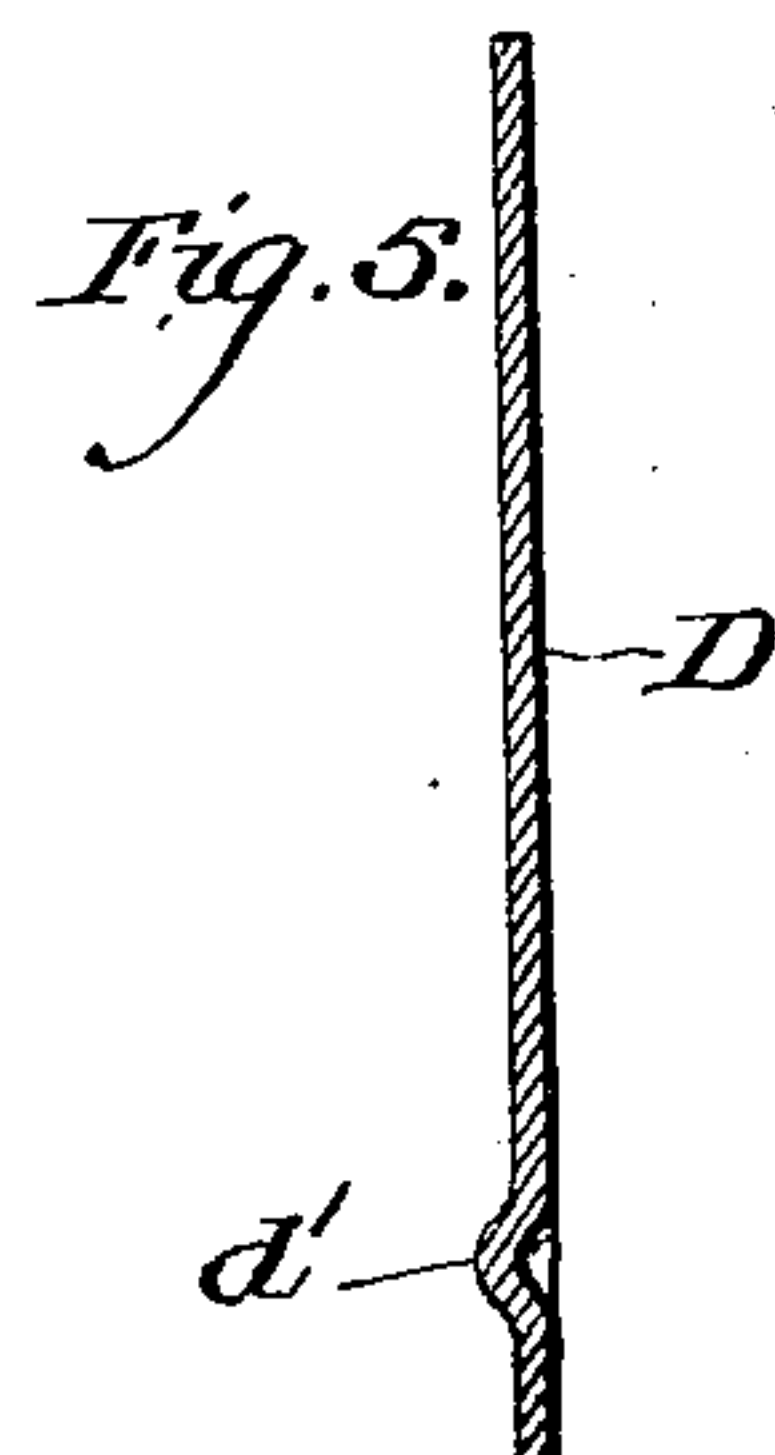
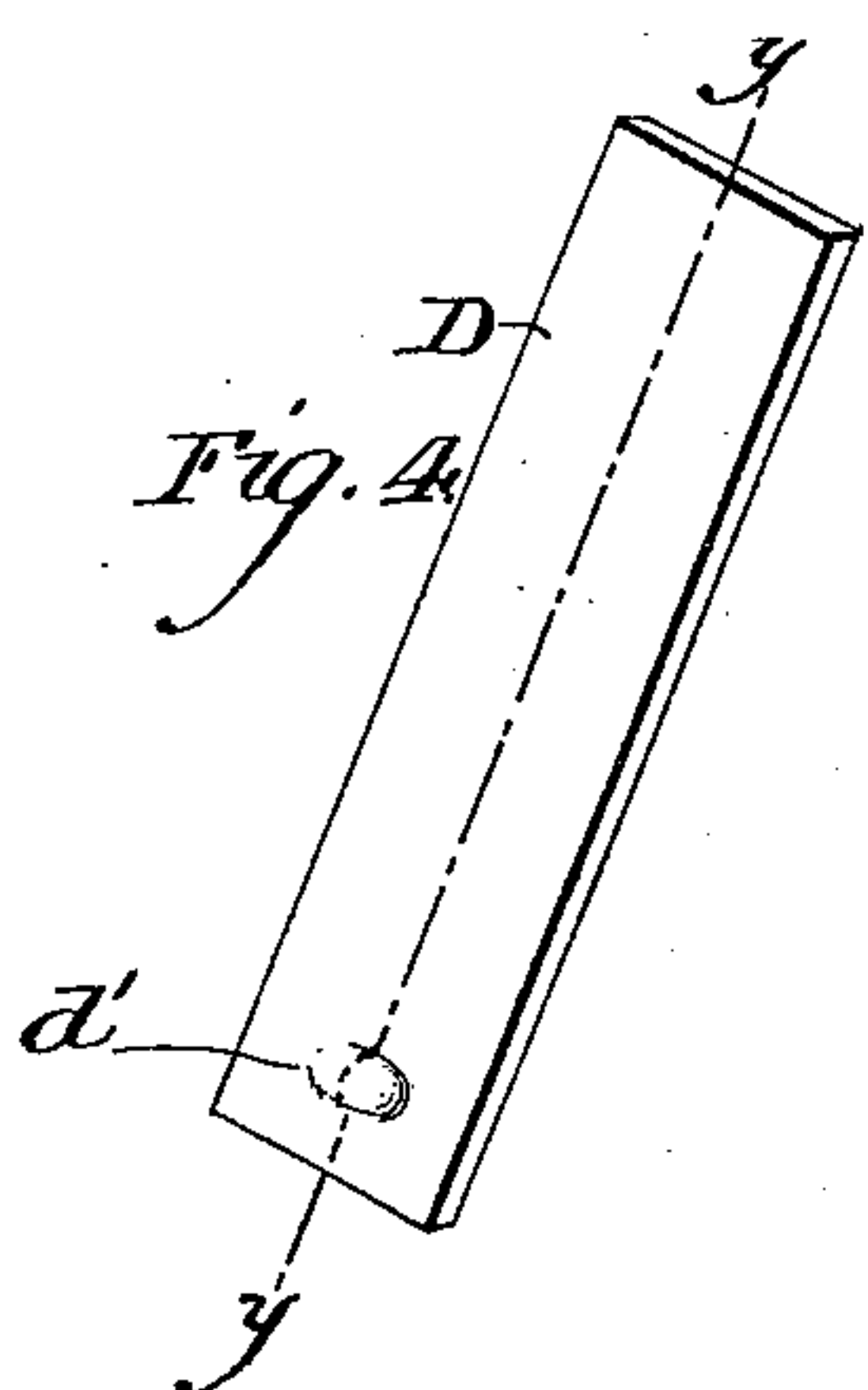


Fig. 2.



WITNESSES:
David S. Williams
Edward F. Ayres

INVENTOR:
Nathan H. Davis
by his atty.
Francis T. Chamberlain

UNITED STATES PATENT OFFICE.

NATHAN H. DAVIS, OF PHILADELPHIA, PENNSYLVANIA.

LID FOR CAR-AXLE BOXES.

SPECIFICATION forming part of Letters Patent No. 521,231, dated June 12, 1894.

Application filed April 14, 1893. Serial No. 470,305. (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 an improvement in axle box lids and has for its object the making of a lid which shall effectually exclude all dust and dirt from the interior of the box and also prevent any of the oil contained therein from escaping and to so construct said lid that a spring for holding it shut can be readily inserted and removed therefrom.

My invention is best described in connection with the drawings in which it is illustrated, and in which—

Figure 1 is a perspective view of a car axle box fitted with my improved lid. Fig. 2 is a cross section on the line $x-x$ of Fig. 1. Fig. 3 is an inside perspective view showing the arrangement of the stirrup used to hold the spring which keeps the lid closed. Fig. 4 is a perspective view of a modified form of spring, and Fig. 5 is a section on the line $y-y$ of Fig. 4.

A is my improved lid made of metal and preferably stamped out of steel into the shape required though of course it is obvious that the lid may be cast or otherwise formed in the desired shape.

B, is the box in which the axle (not shown) bears and which is provided with a shoulder b which is also preferably used as a socket for a bolt as C which holds the lid in the box.

The lid A is preferably formed with a bulge or swell A' to fit over the shoulder b and has its corners a turned when pressed into shape to form hinge eyes, or if cast, these eyes are formed in a corresponding position in the mold. A stirrup a' is secured in the inside of the cover in any convenient manner, preferably by riveting, as shown at a^3 and to hold the cover shut, a spring as D is employed, one end being held by the link and the other end bearing against the face b' of the shoul-

der b on the box. To secure the spring firmly on the cover and prevent any lateral displacement a socket A^2 of suitable size according to the size of the spring D is pressed or cast in the cover, a^4 indicating a metal shoulder formed at the end of the socket A^2 and below the stirrup a' , the spring D is formed with means for catching and holding it under the stirrup a' ; as shown in Fig. 2 the spring is made with a turned up end d adapted to fit under and below the stirrup. When in position as shown in Fig. 2 the spring fits easily in the socket A^2 and is securely held therein by the action of the stirrup, the turned over end d of the spring fitting neatly between the pressed out shoulder a^4 of the socket A^2 and the stirrup; this shoulder a^4 of the socket also forms a stop against which the end of the spring abuts and which serves to prevent the spring from jarring down and freeing its upper end from its bearing against the shoulder b .

If preferred, the spring D can be made as shown in Figs. 4 and 5 with a teat or projection d' which fits under the stirrup a' as shown in Fig. 3 and serves to hold the spring in position in the same manner as the turned up end d .

The chief advantage of my construction is the provision of a cover with no openings therein through which dirt and dust can enter to the axle box and through which no oil can escape with an easily adjustable spring which can be applied when desired without riveting and bolting and which when applied is wholly within the axle box.

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

1. The combination with an axle box having a shoulder b , of a lid A having hinge eyes a whereby it is pivoted to the box and a socket A^2 having a shoulder a^4 , a stirrup a' secured to the inner face of the lid across the socket and a spring D adapted to seat in the socket and having a turned up end d inserted and held between the stirrup a' and the shoulder a^4 of the socket and the other end bearing against the face of the shoulder b substantially as specified.

2. The combination with an axle box having
a shoulder b , of a lid A having hinge eyes a a
whereby it is pivoted to the box and a socket
A² having a shoulder a^4 , a stirrup a' secured
5 to the inner face of the lid across the socket
and a spring D adapted to seat in the socket
and having a portion so bent as to extend,
when the spring is in place, below the stirrup

and having one end bearing against the shoul-
der a^4 of the socket and the other end bearing 10
against the face of the shoulder b substan-
tially as specified.

NATHAN H. DAVIS.

Witnesses:

EDW. F. AYRES,
D. STEWART.