(No Model.)

N. H. DAVIS.

AXLE BOX LID.

No. 570,912. Patented Nov. 10, 1896.

Fig. 1.

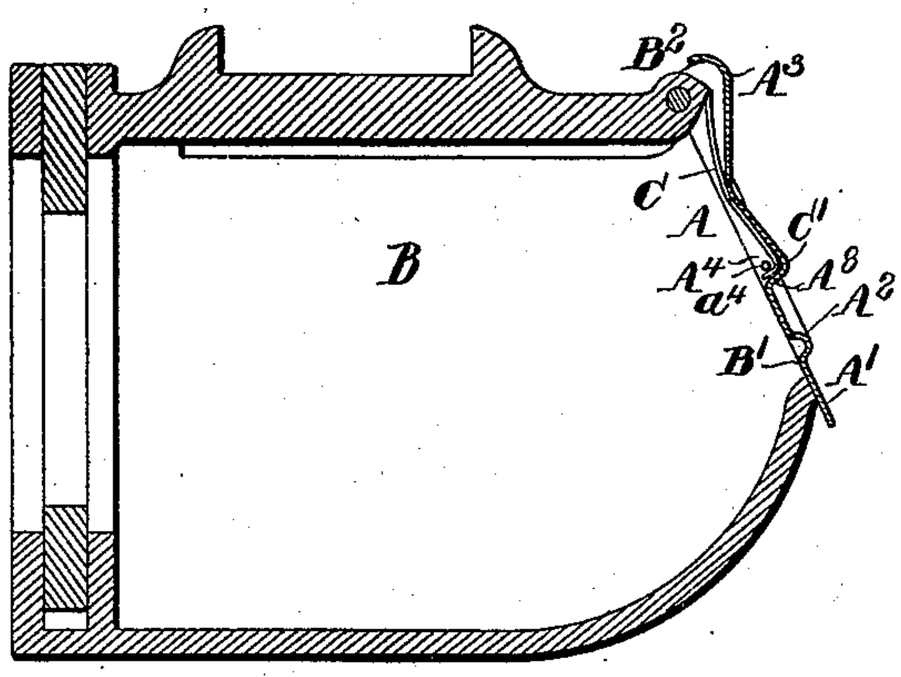

Fig. 2.

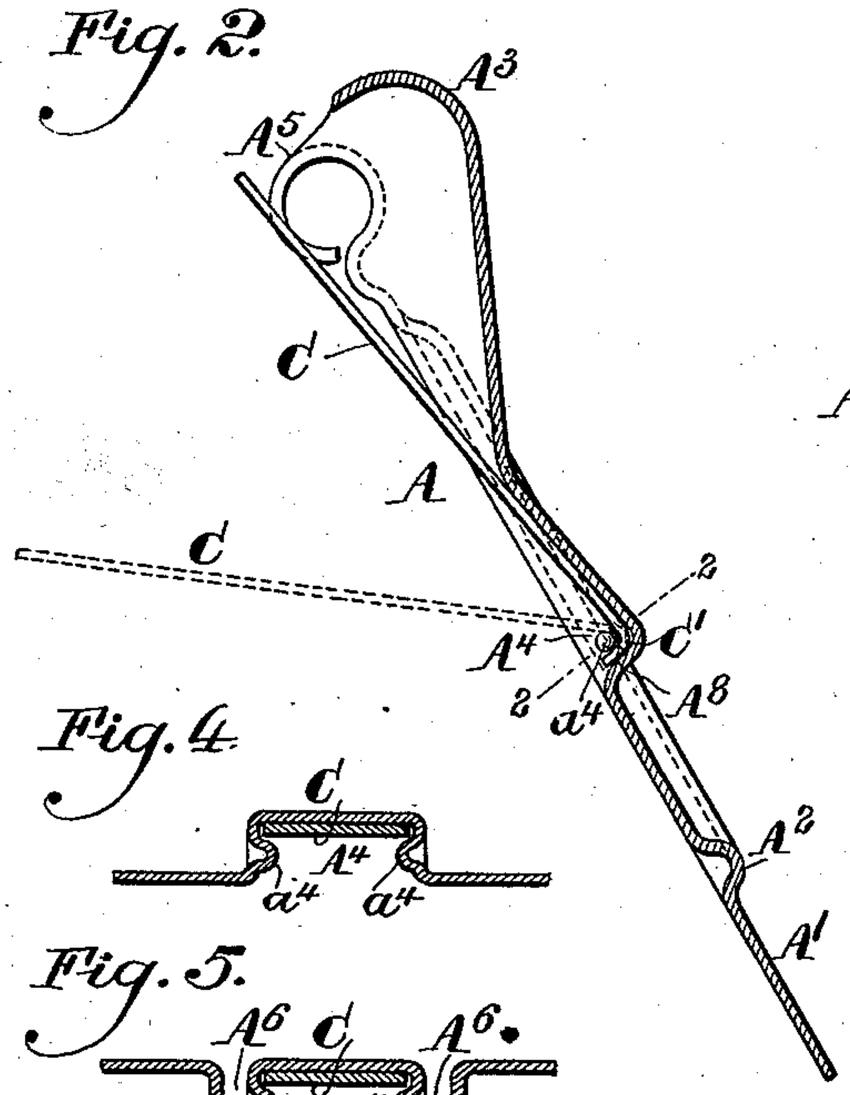

Fig. 3.

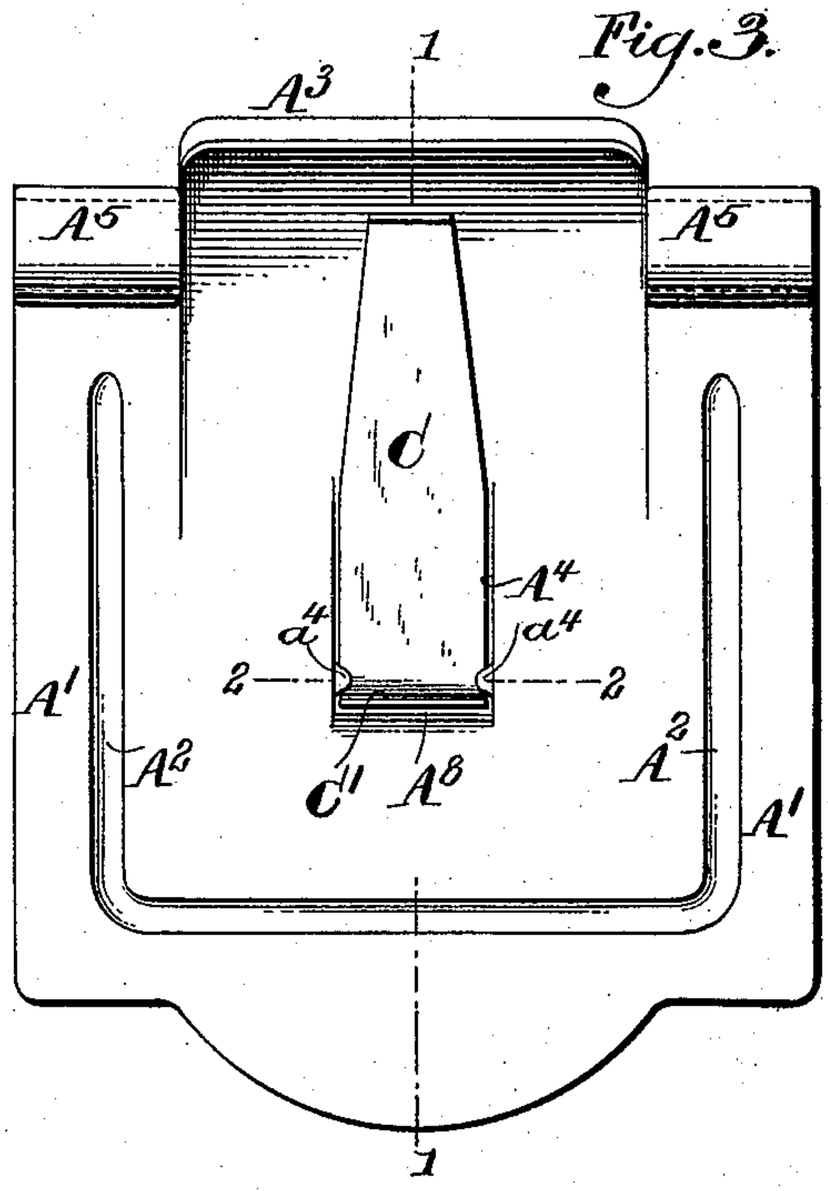

Fig. 4

Fig. 5.

Witnesses.

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AXLE-BOX LID.

SPECIFICATION forming part of Letters Patent No. 570,912, dated November 10, 1896.

Application filed March 14, 1896. Serial No. 583,213. (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 Axle-Box Lids, 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 axle-box lids, and has for its object to provide a lid of the kind used for closing the opening of axle-boxes used on railway-cars which shall be at once simple, cheap, and efficient. Particularly my invention relates to the construction of that part of the lid by which the lid-spring is anchored and held in place upon the lid.

The nature of my improvements will be best understood as described in connection with the drawings, in which they are illustrated, and in which—

Figure 1 is a sectional view of a car-axle box provided with my improved lid. Fig. 2 is a longitudinal section through the lid, taken on the line 1 1 of Fig. 3. Fig. 3 is a plan view of the inside of the lid. Fig. 4 is a cross-section taken on the line 2 2 of Figs. 2 and 3, and Fig. 5 is a similar cross-section illustrating a modification of the invention.

A indicates the box-lid, which is shown as made up of stamped malleable metal, steel plates being generally used for the purpose. The flat portion of the lid which rests upon the edges of the opening in the box is indicated at A′. A^2 indicates a strengthening-rib or corrugation thrown up out of the metal of the lid. A^3 is the hood of the lid; A^4, the central groove formed in the lid for the purpose of affording an anchorage to the lid-spring, which is indicated at C. As shown in Figs. 1, 2, 3, and 4, the groove A^4 is formed by pressing upward a portion of the metal of the lid. A similar groove is shown in Fig. 5 as formed by pushing downward two corrugations the inner walls of which form the walls of the groove A^4. The two methods of construction are manifestly equivalent, both resulting in the formation of the necessary groove for holding the spring-plate.

a^4 a^4 indicate trunnion-like bosses, formed by pressing inward a portion of the metal forming the walls of the groove A^4. These bosses are of circular or approximately circular section and are situated at such a distance from the top of the groove A^4 and from the rear wall of said groove (indicated at A^8) as will permit of the insertion of the hooked end C′ of the spring C. The method of inserting the spring is shown in Fig. 2, the spring being first presented to the lid, as indicated by dotted lines, with its hooked end extending over the round trunnion-like bosses a^4 and then turned upward so as to lie in the groove A^4, as indicated in full lines.

The hinge-eyes of the lid are indicated at A^5, and at A^6 A^6, Fig. 5, I have indicated the two downwardly-extending grooves, which, as already explained, may be used to form the groove A^4, instead of forming it as shown in the other figures of the drawings.

B indicates the axle-box, the edges of the opening therein being indicated at B′, while B^2 indicates the projection at the top of the opening in the box to which the lid A is hinged and upon the end of which the outer end of the spring C rests.

The novel feature of my invention consists, essentially, in the formation of the groove A^4 and the provision of the round trunnion-like bosses a^4, formed integral with the walls of this groove and in such a position as to afford a support and anchorage for the hooked end of a spring C. By this method of construction I am enabled to provide a secure anchorage for the spring without necessitating a perforation of the lid or the use of a separate piece of metal riveted or otherwise secured to the lid for the purpose of anchoring the spring in position. My construction also enables the spring to be inserted and removed instantly at any time, while at the same time securing the spring rigidly in place while in use.

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

1. An axle-box lid having a deep central groove as A^4 and trunnion-like bosses a^4 formed integral with the lid extending inward from the walls of said groove at a distance from the end wall of the groove sufficient to afford room for the hooked end of a spring-plate between said bosses and said end wall.

2. An axle-box lid formed of struck-up

wrought metal having a corrugation forming a deep central groove as A^4 and indentations forming trunnion-like bosses a^4 integral with the lid and extending inward from the walls of said groove A^4 at a distance from the end wall of the groove sufficient to afford room for the hooked end of a spring-plate between said bosses and said end wall.

3. An axle-box lid having a deep central groove as A^4 and trunnion-like bosses a^4 formed integral with the lid and extending inward from the walls of said groove at a distance from the end wall of the groove sufficient to afford room for the hooked end of a spring-plate between said bosses and said end wall in combination with hooked ended spring-plate as C adapted to hook onto the bosses a^4 and lie in the groove A^4.

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