

(No Model.)

W. J. BALL.
CAR AXLE BOX LID.

No. 281,173.

Patented July 10, 1883.

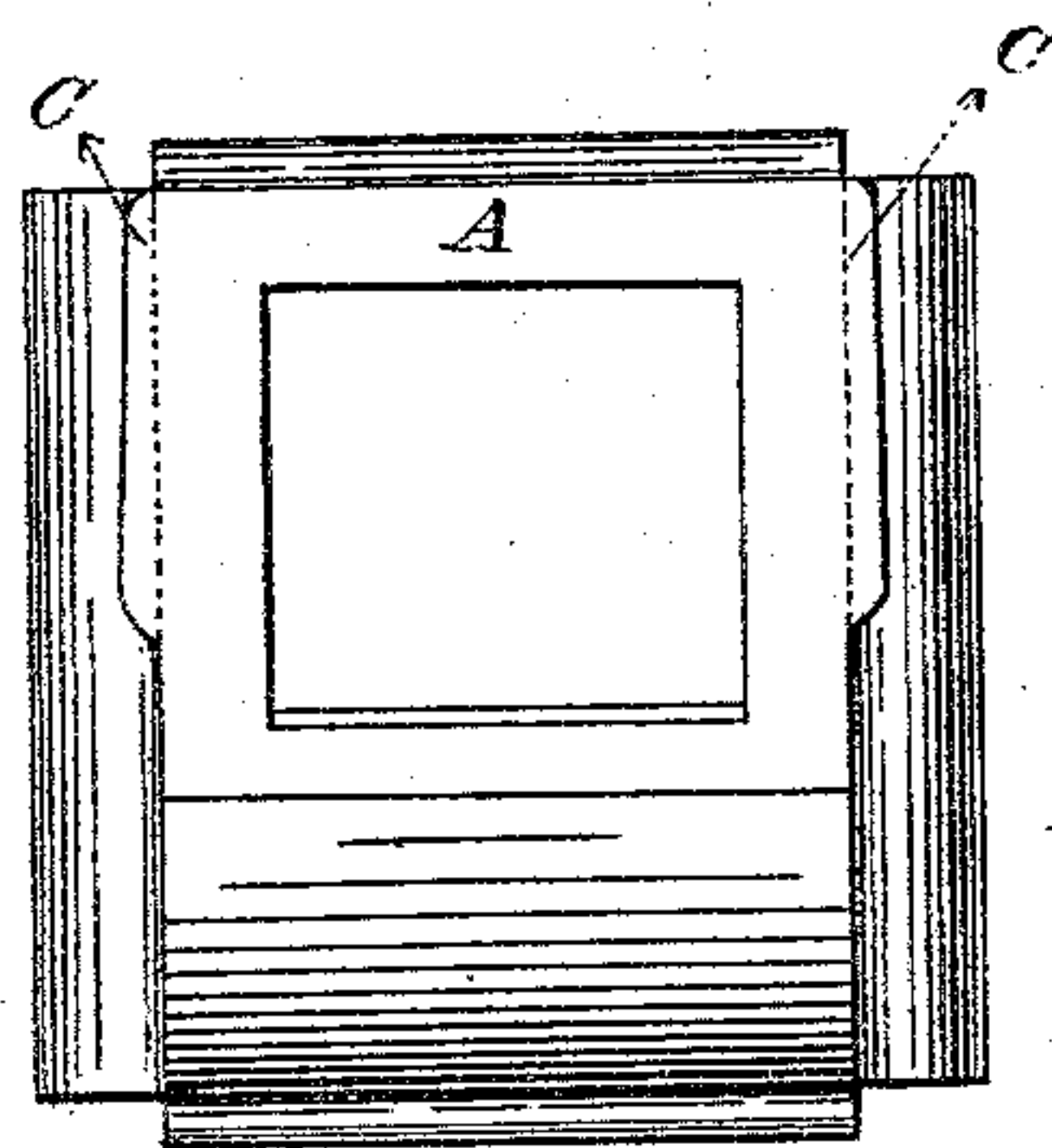
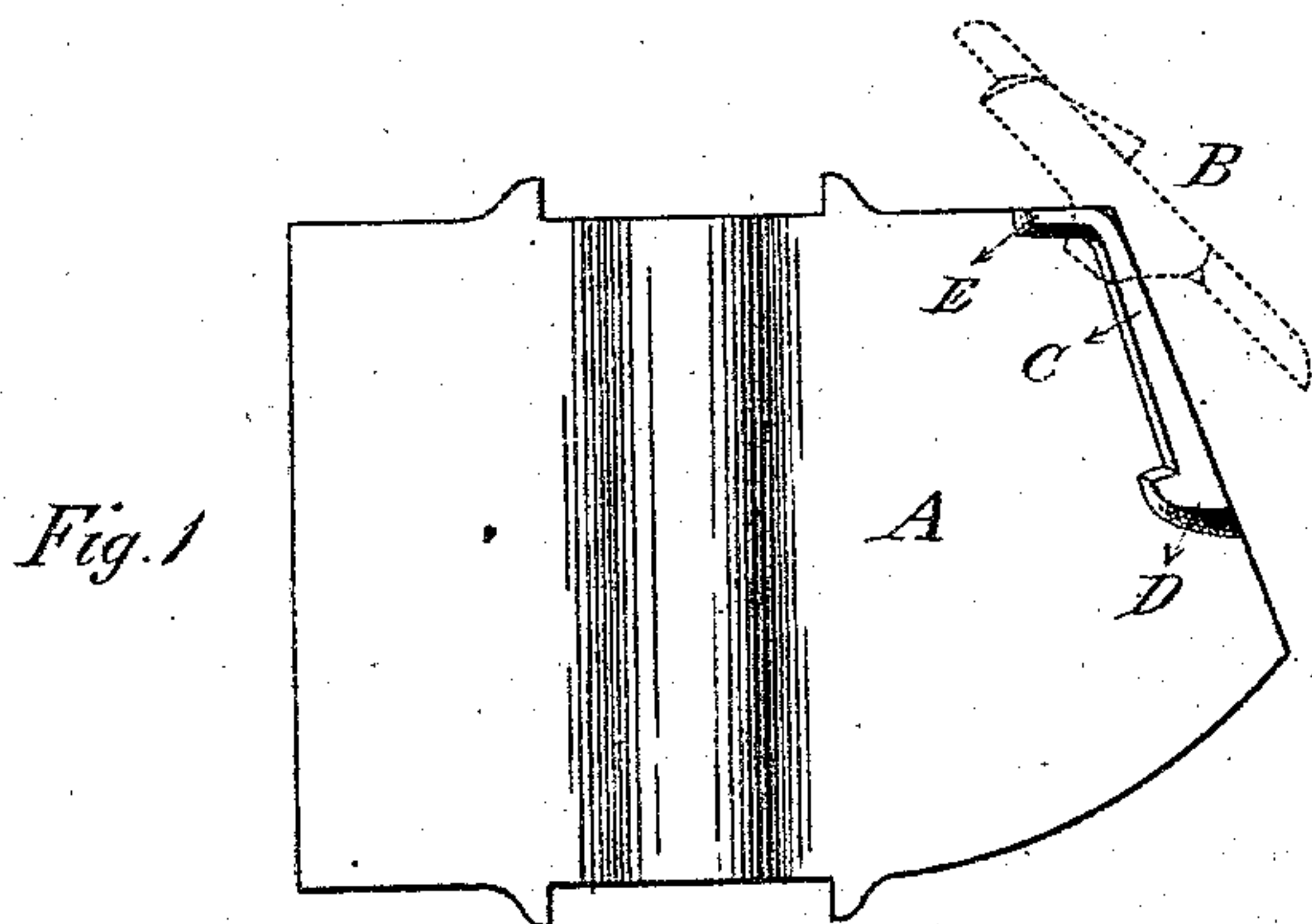


Fig. 2

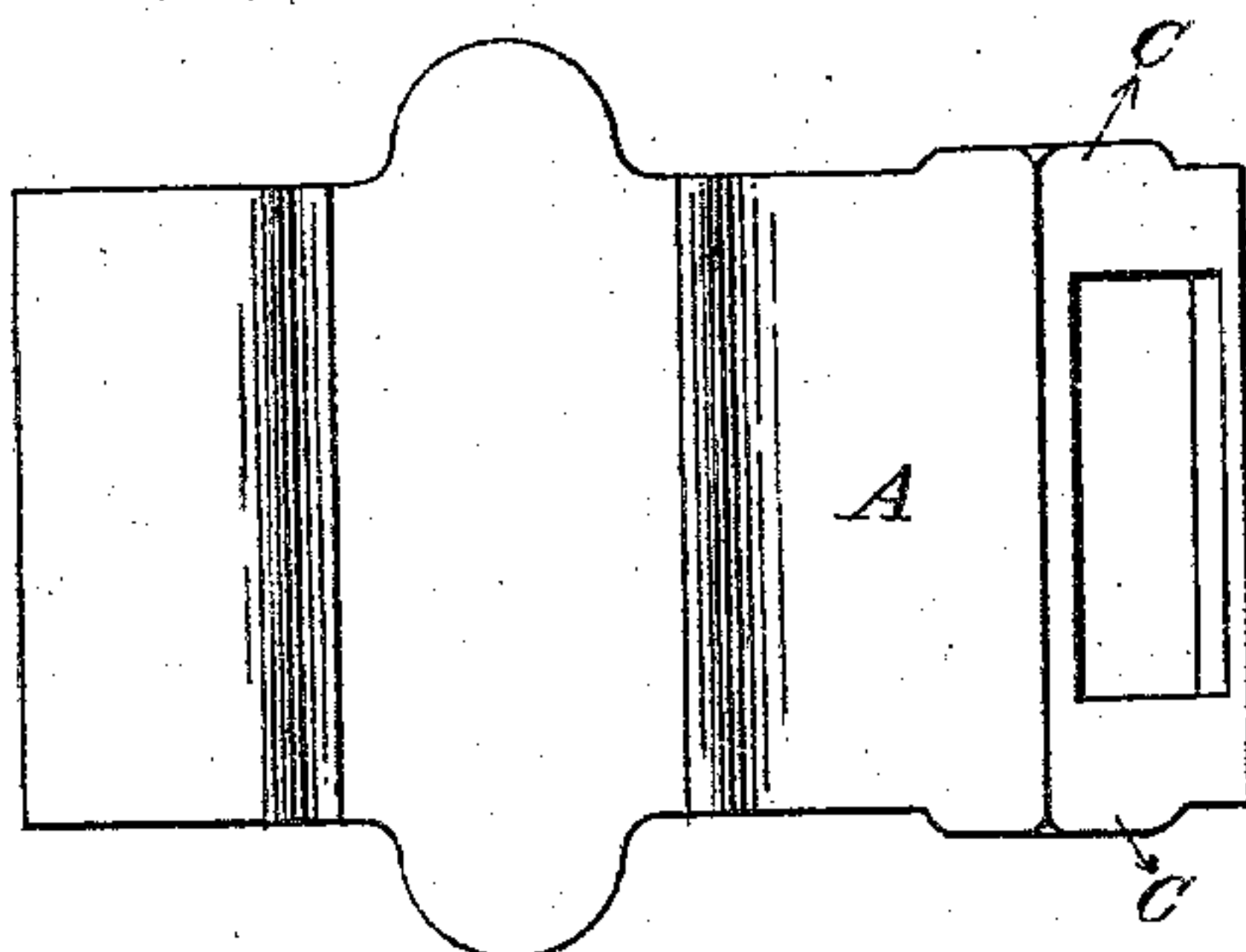
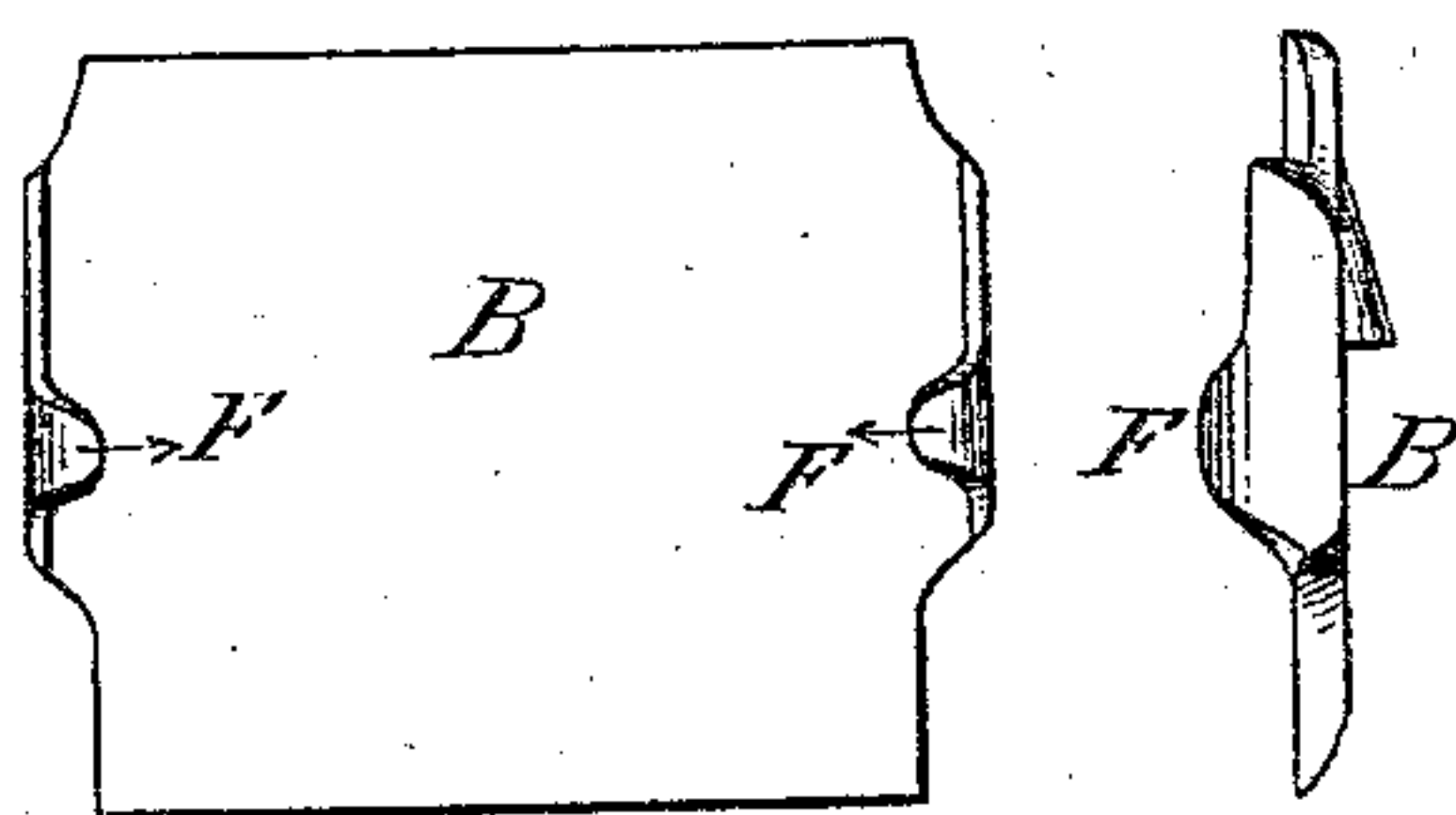


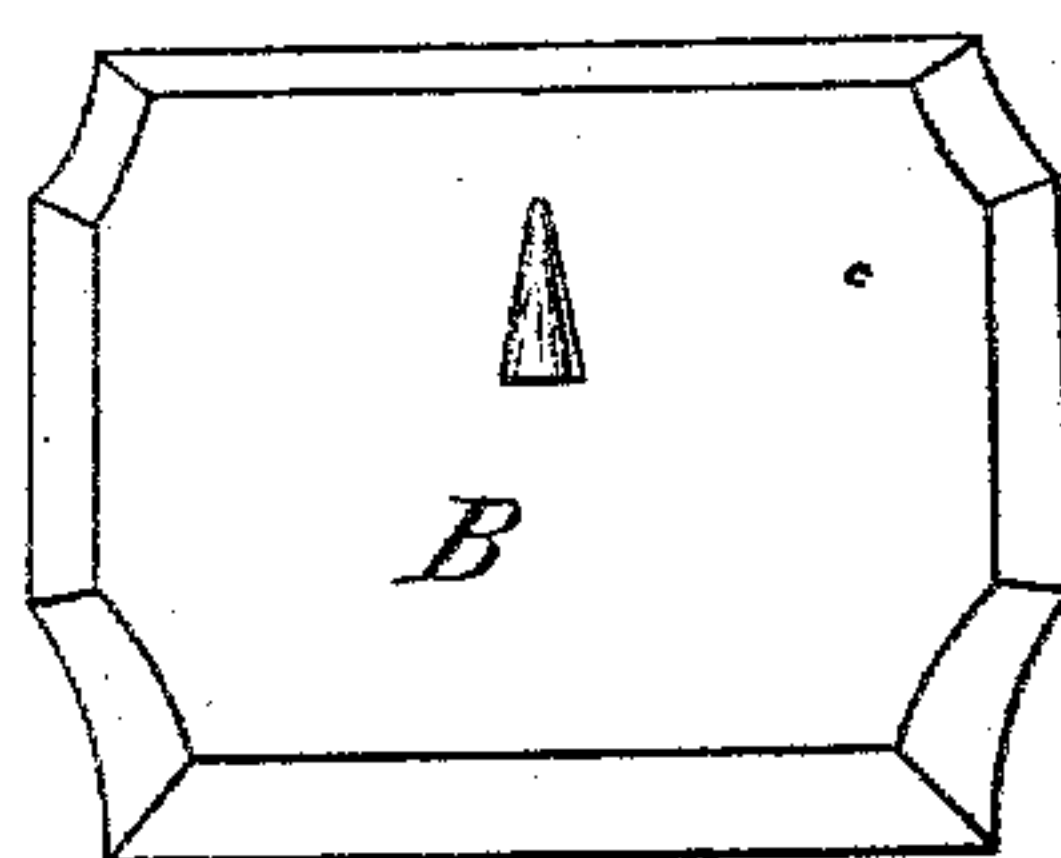
Fig. 3



Fig. 5



Figs. 4



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Witnesses

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UNITED STATES PATENT OFFICE.

WARREN J. BALL, OF CANTON, OHIO.

CAR-AXLE-BOX LID.

SPECIFICATION forming part of Letters Patent No. 281,173, dated July 10, 1883.

Application filed October 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, WARREN J. BALL, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Car-Axle-Box Lids; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon, in which—

Figure 1 is a side view, showing my invention. Fig. 2 is a front or end view. Fig. 3 is a top plan of box. Figs. 4 are front, back, and side views of lid or cover. Fig. 5 is an end view of lid.

Similar letters of reference indicate corresponding parts.

The present invention has relation to certain new and useful improvements in the construction of car-axle-box lids, and has for its object to improve the manner of forming the lid and sides of the box, as will be hereinafter described, and subsequently pointed out in the claim.

In the drawings, A represents the axle-box; B, the lid or cover; C, the wedge-shaped flanges; D, the stops or rests; E, the projection on the flange C; F, the bent or curved projection on the lid or cover B.

The axle-box A may be made of cast-iron or any other suitable material, the body of which is of the ordinary form. The outward sides of this box are each provided with a wedge-shaped flange, C, located at or near the end desired to be covered by the lid B. The top or upper ends of said wedge-shaped flanges are formed with a projection, E. These flanges C increase in thickness, both laterally and longitudinally to the box A, from their top or upper ends to their bottom or lower ends, as shown in Figs. 1 and 2. These wedge-shaped flanges may be formed on the inner sides of an axle-box; but I prefer to have them formed as shown in Figs. 1, 2, and 3, as they can be formed as shown much easier and cheaper on the outside, and are better adapted for the purpose for which they are intended. The front or forward end of this axle-box has a smooth surface, so that the lid or cover B will fit tight for the purpose of excluding the dust and dirt from the box A.

The lid or cover B may be made of cast-iron or any other suitable material, and is of the form shown in Figs. 4 and 5. This lid or cover is provided with two bent or curved projections, F, forming notches or recesses, which fit over the wedge-shaped flanges C on the axle-box A. In case the flanges C are formed on the inner side of the box A, the bent or curved projections F are placed on the lid or cover so that they will fit said flanges when this lid is placed in proper position. It will be seen that by providing the wedged flanges C and the bent or curved projections F the lid or cover B will be drawn tight against the face of the axle-box A as the lid or cover B is pressed downward to its normal position.

In use the lid or cover is placed in position before the arch-bar is placed on the axle-box. After the arch-bar is placed in position, the distance from the rear ends of the projection E of the flange C to the arch-bar is less than the length of the lid or cover B from the bent or curved projections F to the top or upper end of said lid or cover B, thereby causing the lid or cover B to strike against the arch-bar and prevent the bent or curved projections F from passing the projection E of the flanges C, thereby securely holding the lid or cover B to the axle-box A. Stops or rests D are formed on the bottom or lower ends of the flanges C, and are for the purpose of preventing the lid or cover from slipping down by the jar of the car.

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

The car-axle box A, having flanges C of wedge-shape form, and which increase in thickness both laterally and longitudinally, and cast with projection E and stop or rest D on its respective ends, in combination with the lid or cover B, having the bent or curved projections F, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WARREN J. BALL.

Witnesses:

GEORGE H. PRATT,
JOHN H. SPONSELLER.