

(No Model.)

2 Sheets—Sheet 1.

D. JONES.  
JOURNAL BOX.

No. 307,051.

Patented Oct. 21, 1884.

FIG. 1.

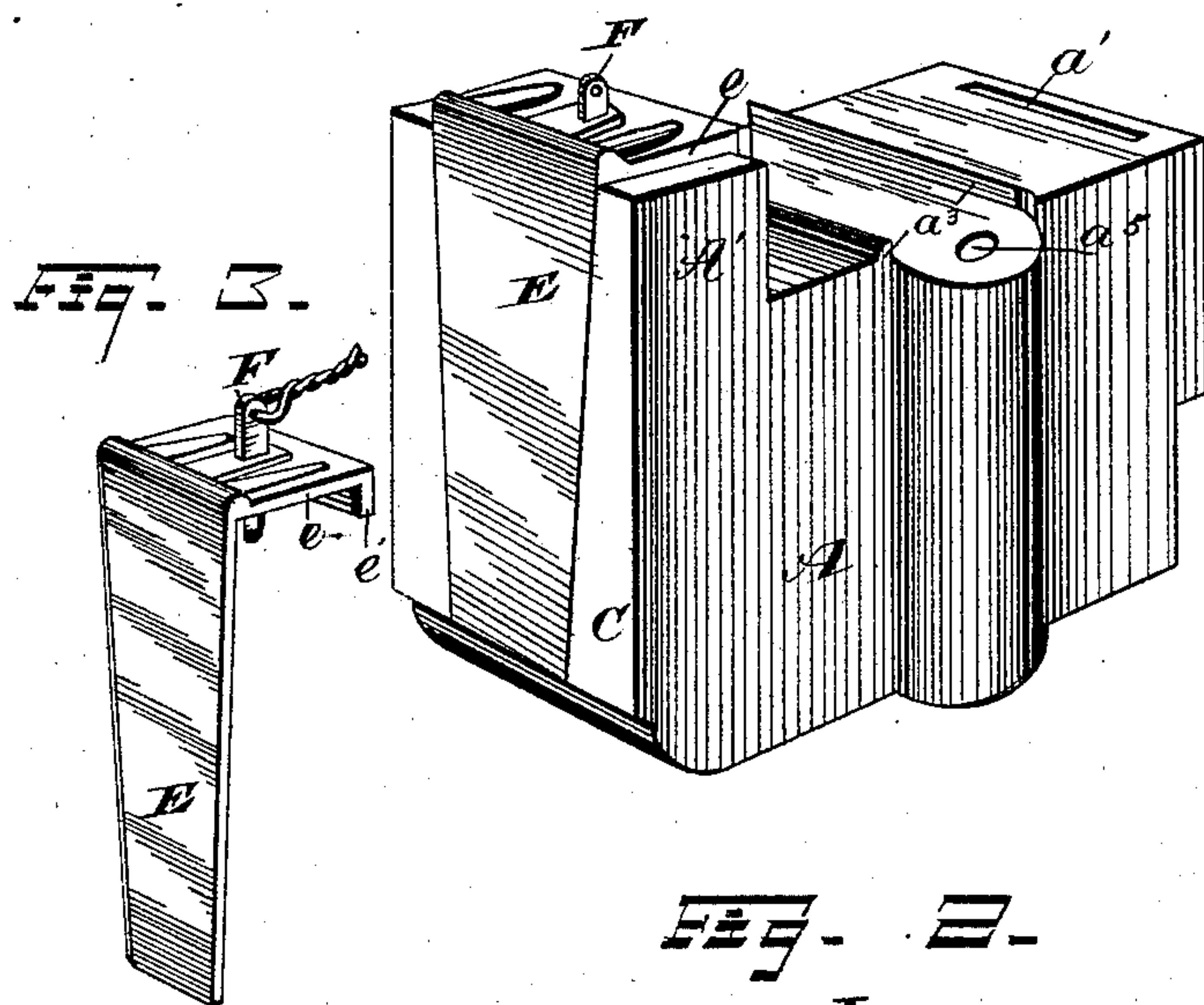
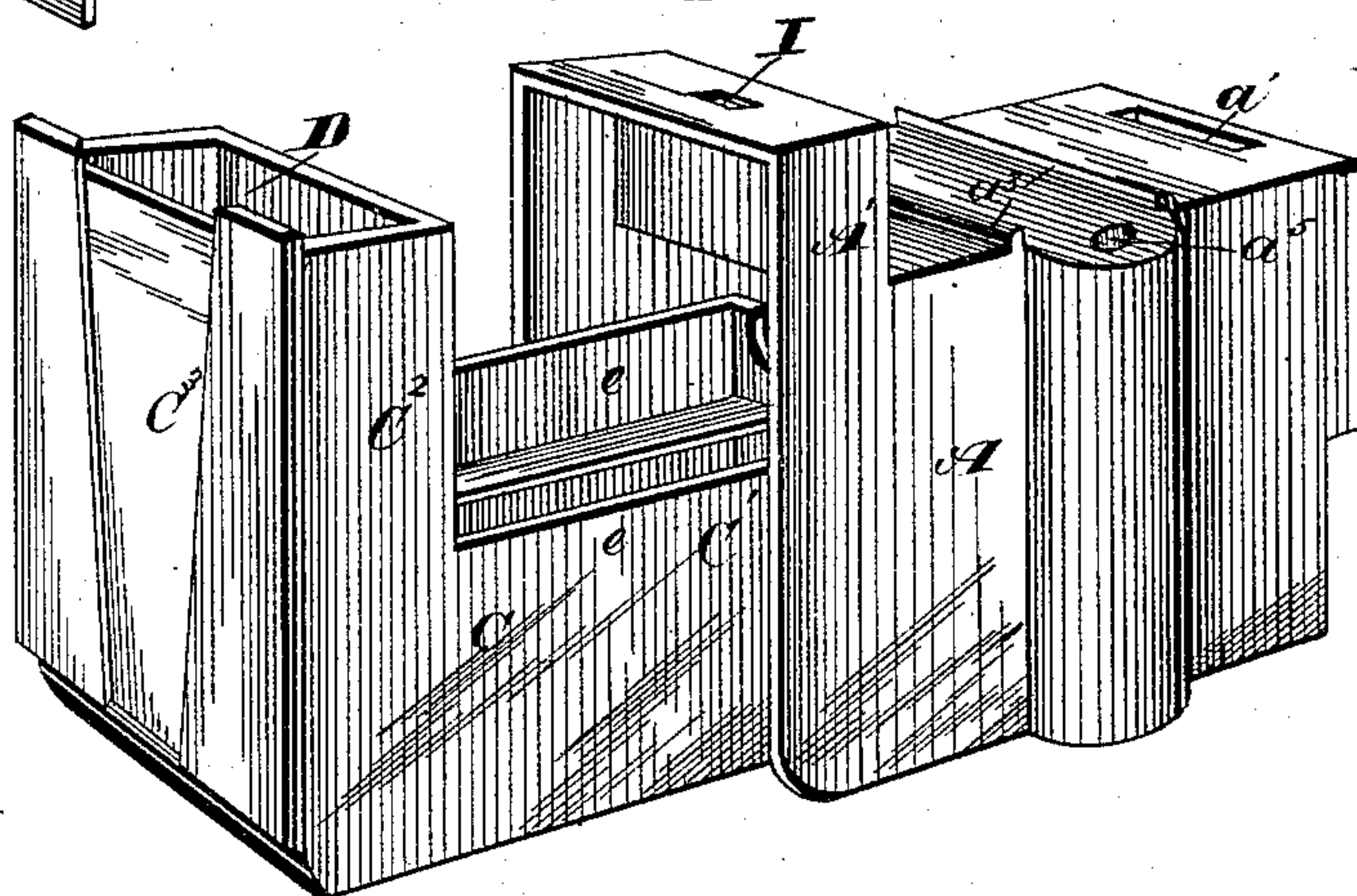


FIG. 3.



WITNESSES

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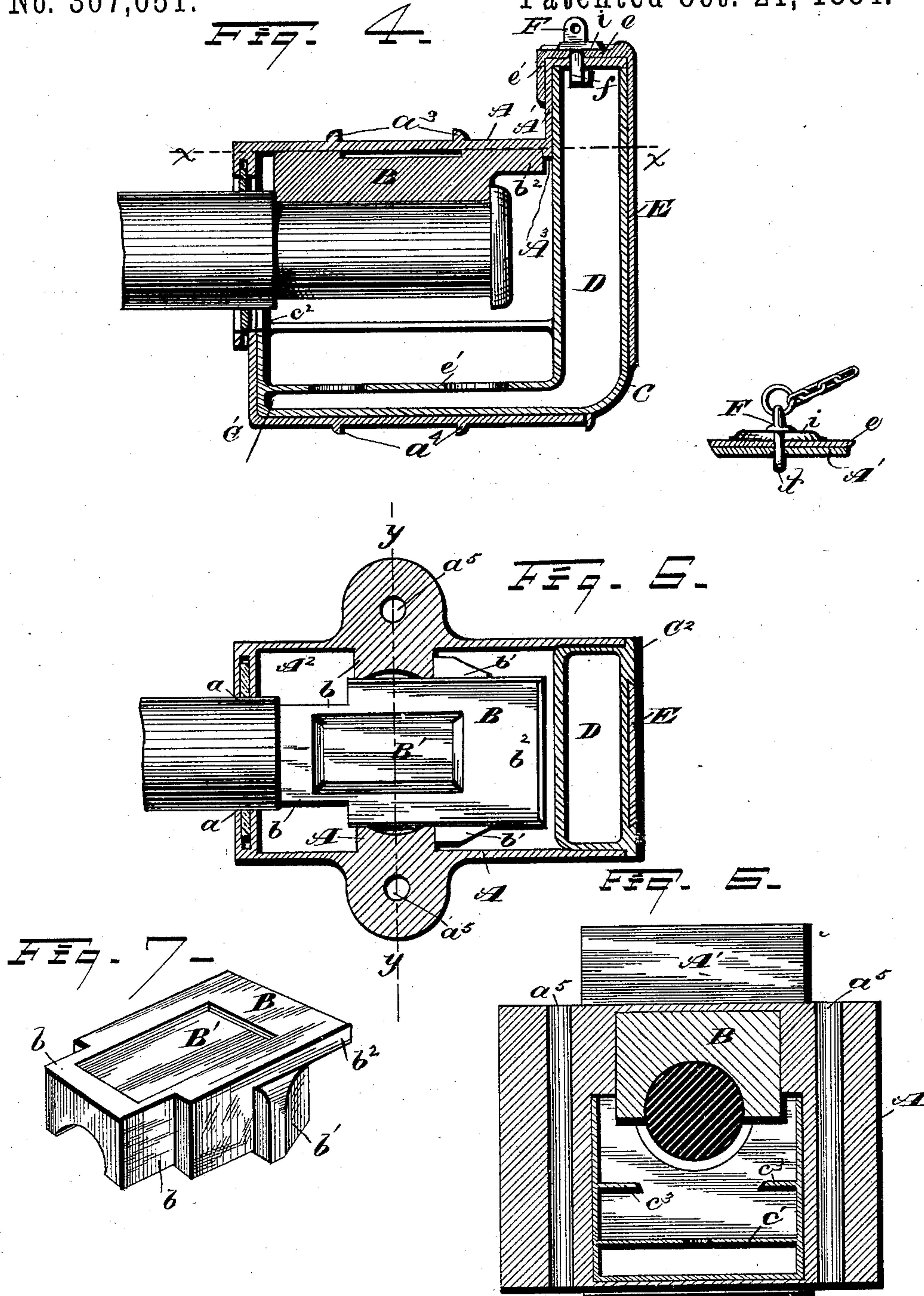
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# UNITED STATES PATENT OFFICE.

DAVID JONES, OF PALOUSE JUNCTION, WASHINGTON TERRITORY.

## JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 307,051, dated October 21, 1884.

Application filed July 26, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID JONES, of Palouse Junction, in the county of Franklin and Territory of Washington, have invented certain new and useful Improvements in Journal-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in journal-boxes for railroad-trucks; and it consists in certain features of construction and in combination of parts, hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved journal-box. Fig. 2 is a view in perspective of the same with the oil and packing container partially drawn out. Fig. 3 is a view in perspective of the device for fastening the oil-container. Fig. 4 is a vertical longitudinal section of the box and an elevation view of a portion of the axle. Fig. 5 is a plan view of the brass box and a horizontal section of the casing and oil-container on the line of  $x x$ , Fig. 4. Fig. 6 is a transverse vertical section on the line of  $y y$ , Fig. 5. Fig. 7 is a view in perspective of the brass box.

A represents the casing or housing, and is of a single piece of cast-iron, and has a suitable opening,  $a$ , at the rear to admit the axle, and is provided at this part with a transverse vertical slot,  $a'$ , in which a piece of leather,  $a^2$ , or other suitable material is inserted that fits nicely around the axle to exclude the dust and dirt. The housing is provided with the ribs  $a^3$  and  $a^4$  and the holes  $a^5$ , for securing the housing to the truck. The housing is a hollow structure, and open at the front end, and has a raised portion,  $A'$ , that embraces the upright portion of the oil-container. The box B is usually of brass or some anti-friction composition, and has a depression,  $B'$ , on top, by means of which some material is saved and the surface to be dressed is materially lessened, and also the box, by having its bearing on the outside, is more firm on its seat and is not liable to rock. The box is cut away at  $b$  to save metal, and is provided with the lugs  $b'$ , that abut against the lugs  $A^2$  of the housing and hold the box from moving rearward, while

the flange or extension  $b^2$  of the box abuts against the rib  $A^3$  of the housing and prevents the box from moving forward. The box laterally is an easy fit between the lugs  $A^2$ , so that it can adjust itself to the line of the axle. The face of the lugs  $A^2$  are concaved, as shown, so that if any fitting of the lugs is necessary there will be but little metal to cut away, and the expense of such fitting is thereby materially lessened.

C is the oil-container, the shape of which is clearly shown in Figs. 2 and 4, and consists, essentially, of the rectangular horizontal part  $C'$  and the upright rectangular part  $C^2$ , that are integral. The walls of the part  $C^2$  inclose the chamber D, that leads under the perforated false bottom  $c'$  of the part  $C'$ . The sides  $c$  of the part  $C'$  extend up above the center of the axle, as shown in Fig. 6, and the rear end wall,  $c^2$ , fits close to the axle E. The sides  $c'$  are provided with the ribs  $c^3$ , that serve to hold down the packing with which the part  $C'$  is filled.

E is a plate that is dovetailed into the recess  $C^3$  and has a laterally-projecting part,  $e$ , that when the parts are in position extends across and on top of the part  $A'$ , and a depending flange,  $e'$ , that hooks over the rear edge of the part  $A'$ , by means of which the oil-container is held in its place in the housing, as shown in Figs. 1 and 4. A key, F, may be provided, the round shank of which passes through the part  $e$  and through the light spring-washer G, and has a laterally-projecting lug,  $f$ . The upper portion or thumb-piece of the key may have a hole, so that a chain or wire may be attached to secure this part to the housing, so that when the part E is drawn out it will not be thrown down and lost, but well held by the said key and chain. The lug  $f$  is in the same vertical plane with the thumb-piece, and when the part E is to be withdrawn or inserted in its proper position, by turning the thumb-piece of the key to the position shown in Fig. 3 the lug  $f$  will pass through the elongated hole I in the part  $A'$ . When the parts are in position and are to be secured, by pressing on the top of the key so as to depress the spring-washer the key may be turned to the position shown in Figs. 1 and 4, in which position the lug  $f$  will engage the under side of the top plate of the



part A'. This part of the plate may be provided with a slight depression on the under side, as shown at *o*, Fig. 8, in which case, by means of the elastic washer, the lug would be held in said depression so that it would not be displaced by accident, and the parts would thereby be securely held together.

As shown in Fig. 4, while the rear wall of the container fits close to the axle, the rear wall of the housing is cut away above and below the axle, so that when the oil-container is removed the housing may be raised and the front end tilted upward until the box B may be withdrawn toward the front and a new box placed in position with very little trouble.

In operating the device the horizontal part C' of the oil-container is packed with cotton-waste or similar material, and it should be pressed down under the ribs *c'* to hold it in position, and the container should be so nearly filled with the packing that the latter will press up around the under side of the axle-journal. The oil is poured into the chamber D and passes up through the perforated bottom, saturating the waste, and is carried up and distributed on the journal. The chamber D in the upright part might be partially filled with waste that would act as a filter and arrest any sediment in the oil. When the container needs replenishing with oil, the part E is removed and the container drawn out a little way far enough to expose the mouth of the chamber D in which there is plenty of room to pour the oil without wasting it. After pouring in the oil, the container is pushed back to its place and secured by the slide E and the key F, as aforesaid. If the parts are well fitted, little or no dust will be admitted inside the journal-box. If at any time, through neglecting to supply the box with oil, the journal should become heated, the oil-container can be entirely withdrawn and the journal cooled by dashing water in the housing. Meantime the oil-container may be supplied with oil and new waste, if necessary, and made ready to be returned to its place.

With the journal-boxes heretofore commonly used on railroads it requires some time to remove the waste by means of a hook or similar instrument, and after the journal has been

cooled with water the water in turn must be removed before the oil-container is in fit condition to receive new waste and oil, causing a much longer delay than would be necessary if my improved mechanism were in use.

By reason of the ample room in the container for storing oil the journal-box will run a long time without refilling.

In place of the key F a stud may be screwed into the top plate of the part A', and extend up through the part *e*, and have a nut on top, or a screw-bolt may extend through the part *e* and screw into the said top plate of the part A'; but the key is preferable, because it can be so quickly manipulated.

What I claim is—

1. In a journal-box for railroad-trucks, a removable oil-container consisting, essentially, of the horizontal part C' and the upright part C<sup>2</sup>, the former provided with the false perforated bottom *c'* and the ribs *c'*, and the latter provided with depressions or recesses C<sup>3</sup>, the side walls of which are undercut, substantially as set forth.

2. The combination, with a removable oil-container provided with the recess C<sup>3</sup>, of the part E, provided with beveled edges and provided with the part *e* and the rib *e'*, substantially as set forth.

3. The combination, with the housing A, provided with the upright part A', of the removable container C, provided with the upright part C<sup>2</sup>, adapted to fit into the part A', substantially as set forth.

4. The housing A, provided with the rib A<sup>3</sup> and the lugs A<sup>2</sup>, of the box B, provided with the depression B', the lugs *b'*, and the extension *b'*, substantially as set forth.

5. The combination of the part E, provided with the parts *e* and *e'*, of the key F, provided with the lug *f* and spring-washer *i*, and the depression *o*, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 14th day of July, 1884.

DAVID JONES.

Witnesses:

L. L. CALAVAN,  
R. D. CALAVAN.