

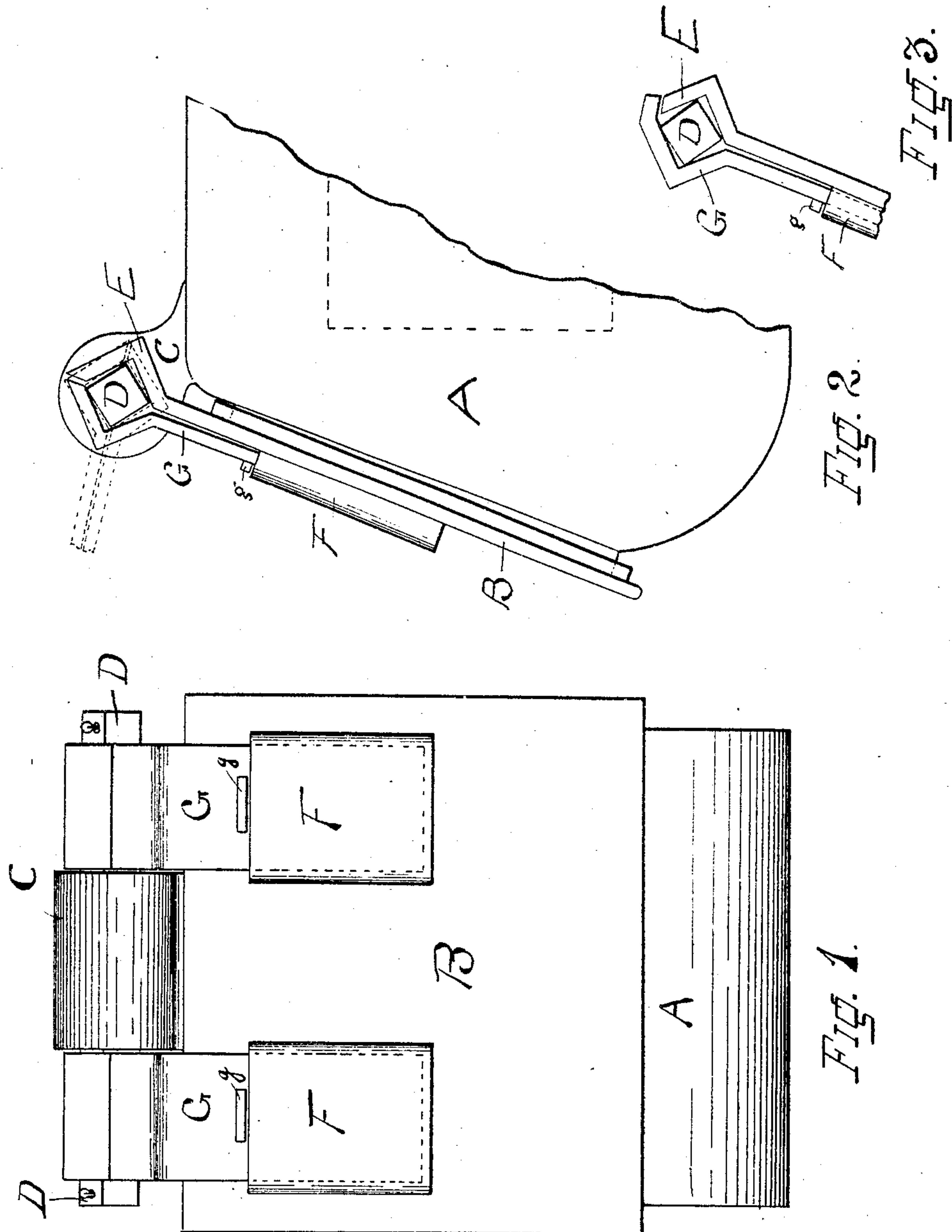
No. 771,453.

PATENTED OCT. 4, 1904.

H. BENSCH.
JOURNAL BOX.

APPLICATION FILED JULY 16, 1904.

NO MODEL.



WITNESSES:

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JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 771,453, dated October 4, 1904.

Application filed July 16, 1904. Serial No. 216,904. (No model.)

To all whom it may concern:

Be it known that I, HERMAN BENSCH, a citizen of the United States of America, and a resident of Davenport, in the county of Scott and State of Iowa, have invented a certain new and useful Improvement in Journal-Boxes; and I do declare the following specification, taken in connection with the drawings, making a part of same, to be such a full, clear, and exact description thereof as will enable those skilled in the art to which said invention appertains to make and use the same.

My invention relates to journal-boxes, and particularly to the journal-boxes of cars.

The objects of my invention are to produce a journal-box in which the lid will be secured to the box by means of a flexible or yielding hinge, so that when the free end or edge of the lid is raised or opened the lid will automatically remain in its opened position until manually closed and when closed so that the lid will be pressed and firmly held against the edges or sides of the opening in the box through spring-pressure.

A further object is to produce a journal-box in which the lid is readily removable and in which the hinge connection is simple, durable, and easily repaired.

A further object is to produce a journal-box which will be substantially dust-proof and in which the lid thereof may be readily opened and closed.

I have shown my invention in the form of a car journal-box the body or receptacle portion of which may be of any desired form, so that the edges surrounding the opening thereof will correspond with the lid.

The essential and important feature of my invention lies in the idea of means which I employ in connecting the lid with the body of the box and the objects which I attain by the employment of such idea of means.

Figure 1 is a front view of my invention; Fig. 2, a side view of the same, and Fig. 3 shows a modification of the form of the hinge connection.

Like letters indicate similar parts throughout the several views.

In the drawings, A is the body of the box, which may be of any suitable form.

B is the lid.

C is the shaft-bearing, preferably cast integral with the box-body A, as is usual and well known in car journal-boxes.

D is the shaft, made square in cross-section and mounted horizontally in the shaft-bearing C, so that it will not turn therein. The ends of said shaft project on either side of said shaft-bearing a sufficient distance to enable the hinge portions of the lid to be mounted thereon.

Extending upward from the upper edge of the lid are two angular tongues E E, one of which is shown in Fig. 2. These tongues may be cast integral with the lid B or secured thereto in any suitable manner. The angular or irregularly-shaped portion of these tongues will substantially surround the rear half of the shaft D.

Upon the front or face of the lid B are cast or secured the vertically-slotted pockets F F, and into these pockets are placed the two angular spring-plates G G. These plates are provided with lugs g g, which serve as stops by coming in contact with the upper edges of the pockets. The angular or irregularly-shaped portion of the spring-plates G G will substantially inclose or surround the front half of the shaft D, which with the angular portion of the tongues E E substantially surround the two projecting ends of the square shaft D, and the extremities of the angular portions of the tongues E E and spring-plates G G will meet when in their normal position. It will now be seen that the square shaft D, being mounted in the bearing C, which bearing has a corresponding square horizontal perforation, said shaft cannot turn in said bearing, but will remain stationary therewith. The square shaft in the shaft-bearing will be positioned substantially as shown in Figs. 2 and 3, while the angles of the tongues E E and spring-plates G G will be slightly at variance therewith, as is also shown in said figures, and this variance will cause a pressure through the action of the spring-plates of the lid against the box when the same is closed, thus preventing the admission of dust or other foreign substance to the interior of the box. Now when the lower free edge of the lid is raised the angular portions of the tongues E E and spring-plates G G will be moved rearwardly

around the square shaft D, the spring-plates G G yielding to the pressure of the corners of the square shaft D against their inner angular surfaces. When said lid has been raised to the height indicated by the dotted lines of Fig. 2, the angular portions of the tongues and plates will be in the position indicated by the dotted lines, which are shown in Fig. 2 surrounding the square shaft D. When in this position, it will readily be seen that the lid will be held automatically in that position, and by reason of the friction between the parts the lid may be automatically maintained in any desired position.

In the modification shown in Fig. 3 the angular portion of the spring-plates G G are extended, so as to lap over the ends of the tongues E E to prevent the admission of dust or cinders in the space between said parts.

Many modifications of the form of my invention here shown will suggest themselves to those skilled in the art, particularly in the form of the irregularly-shaped parts which constitute the hinge connection between the box and lid; but such modifications would still be within my invention. The same result will be attained by mounting the shaft in bearings at each end thereof and placing the connecting-plates between such ends, and the spring-plates may be secured to the lid by other means than the pockets. My invention contemplates such changes of structure, and I do not wish to limit myself to the form herein shown and described; but

What I do claim, and desire to secure by Letters Patent, is—

1. A box with an opening, a shaft-bearing secured to the box, a lid adapted to cover the opening in the box, a shaft non-revolubly mounted in the shaft-bearing, means for flexibly connecting the lid with the shaft for the purposes herein stated.

2. A box having an opening in one of its sides, a shaft-bearing secured to the box adjacent to the opening in the box, a shaft non-revolubly mounted in said bearing, a lid adapted to cover the opening in the box, means integral with the lid and extending therefrom, whose outer end substantially conforms to the shape of one-half of the shaft

in cross-section and partially surrounds the same, flexible means one end of which is loosely secured to the lid, its other end of such form as to substantially conform to the shape of the other one-half of the shaft in cross-section, for the purposes herein stated.

3. A box having an opening in one of its sides, a shaft-bearing secured to the box above the opening therein, a shaft non-revolubly mounted in said bearing, a lid adapted to cover the opening in the box, two metal pieces extending from the rear of the lid, their form conforming to the shape of one-half of the shaft in cross-section and adapted to substantially surround one-half of said shaft, two spring-metal pieces, connected with the lid at one of their ends, their other ends of such shape as to conform to the shape of the other one-half of the shaft and adapted to surround such shaft, for the purposes stated and substantially as described.

4. In a journal-box, the body A, the lid B, the shaft-bearing C, the shaft D, the extension-tongues E E, the pockets F F, the spring-plates G G, for the purposes stated, and substantially as described.

5. In a journal-box, a lid having rearwardly-extending tongues of irregular conformation, spring-metal plates secured to the lid and of irregular conformation so located with reference to each other as to form openings between such extending tongues and spring-metal plates and a shaft extending within and through such openings and supporting said lid for the purposes herein stated.

6. In a journal-box the lid B, extension-tongues E E secured thereto, spring-metal plates G G, means for securing them to the lid, said extension-tongues E E and spring-metal plates G G adapted to receive a shaft, the shaft D mounted in the openings between said extension-tongues and spring-metal plates, substantially as described.

In witness whereof I have signed my name this 29th day of June, 1904.

HERMAN BENSCH.

Witnesses:

J. C. ANDERSON,
A. G. SAMPSON.