

F. S. CURRIE.
 COMBINED JOURNAL BOX AND DUST GUARD.
 APPLICATION FILED OCT. 11, 1909. RENEWED JUNE 22, 1911.

999,486.

Patented Aug. 1, 1911.

FIG. 1.

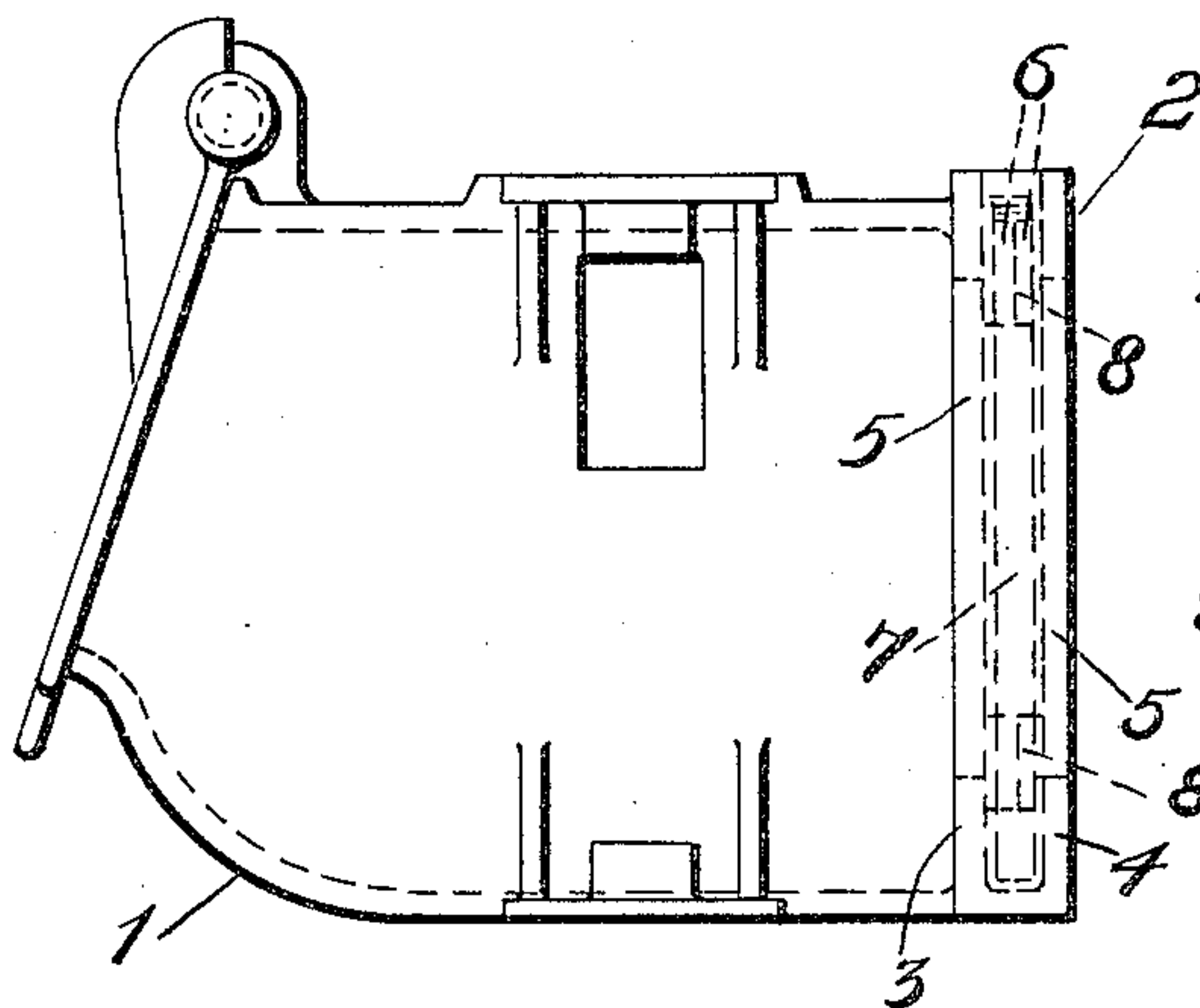


FIG. 2.

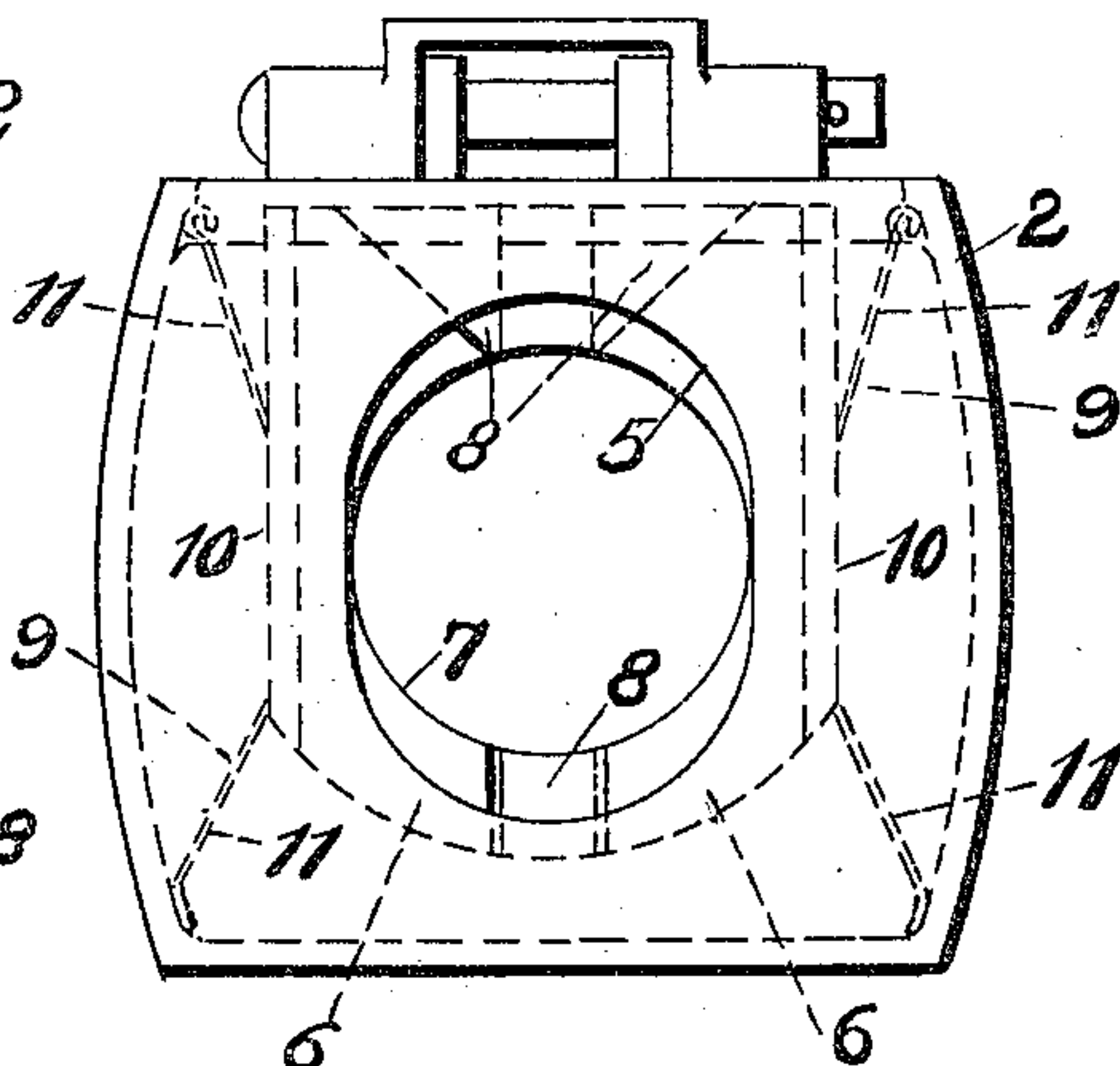


FIG. 3.

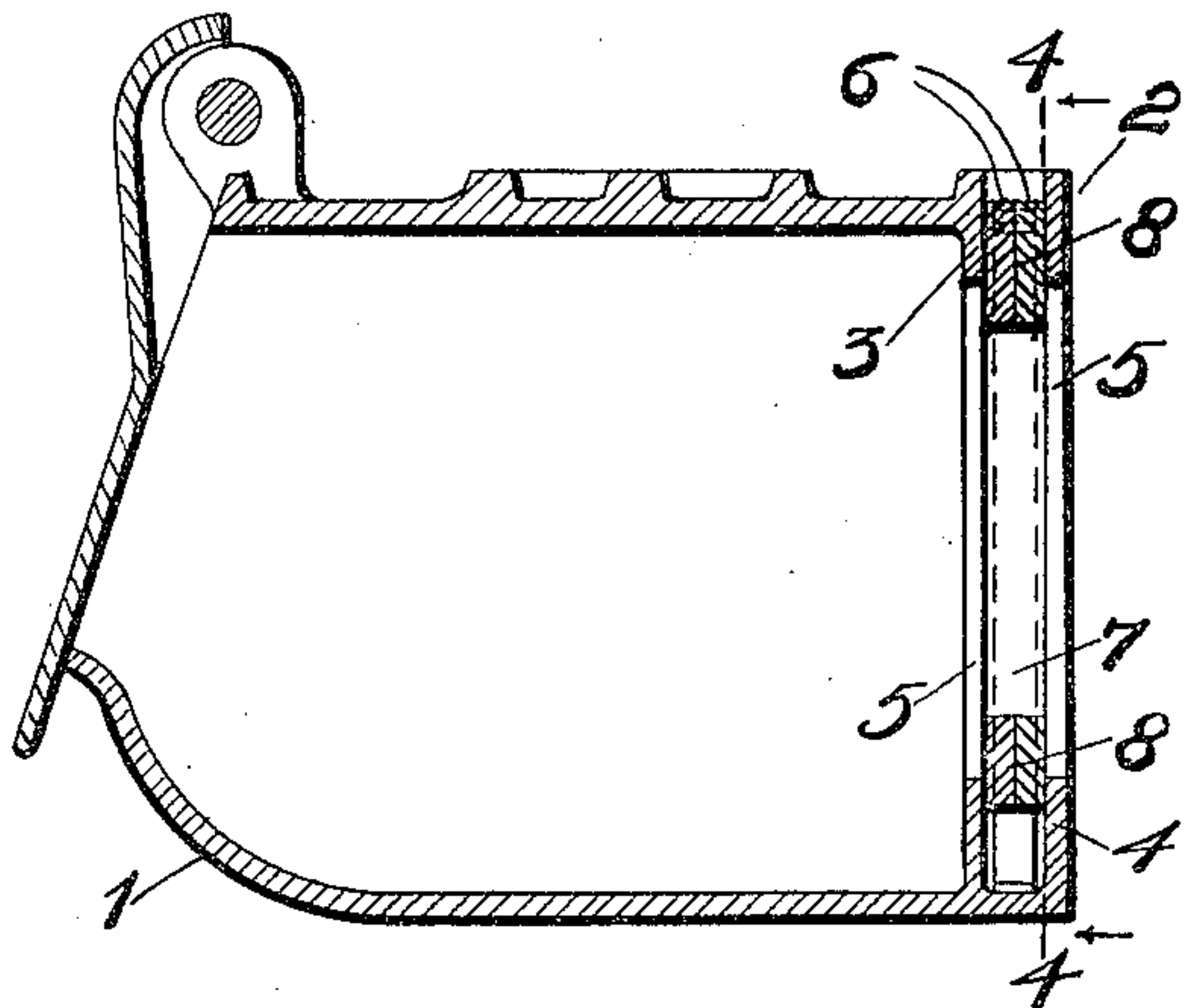


FIG. 4.

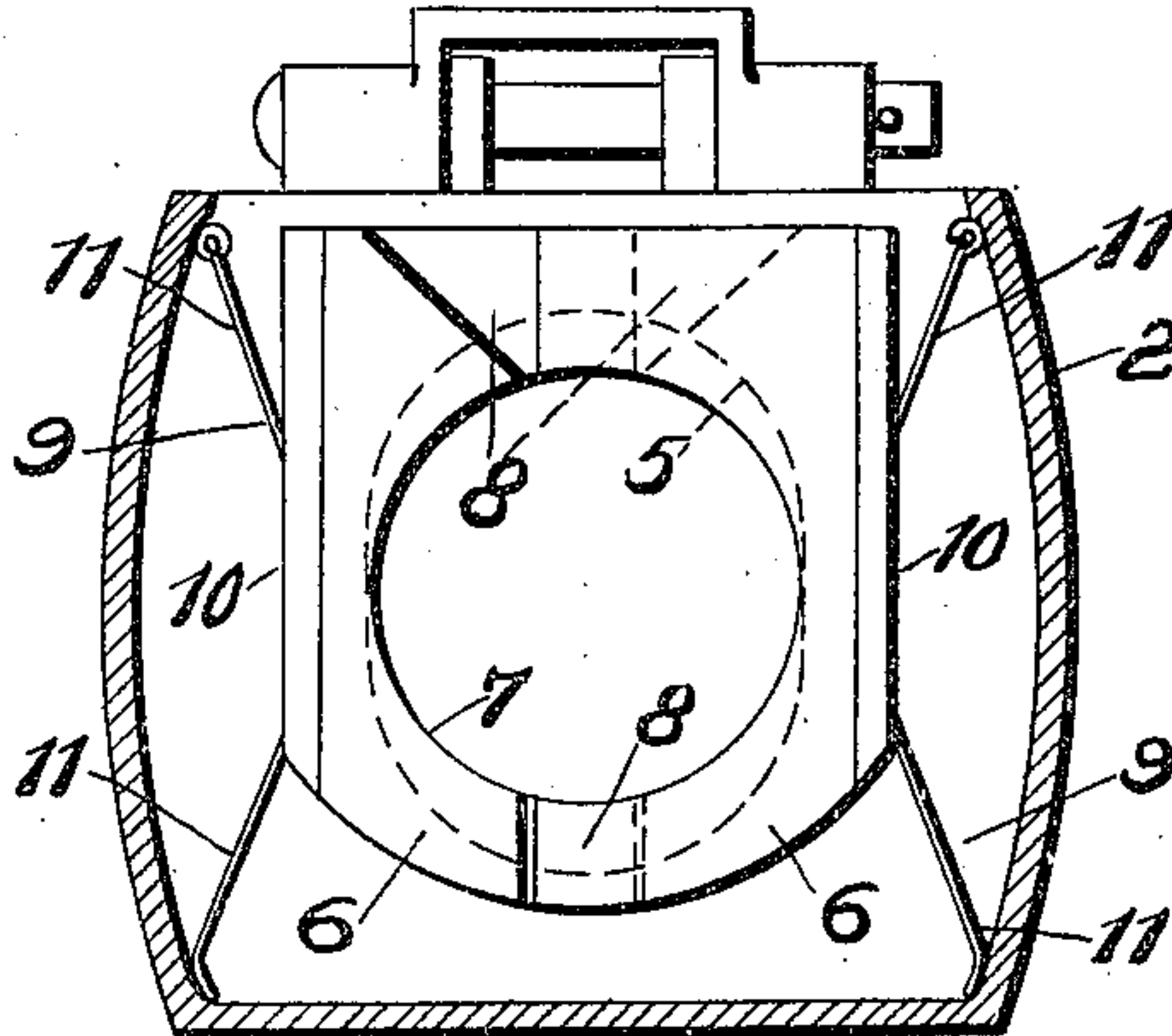
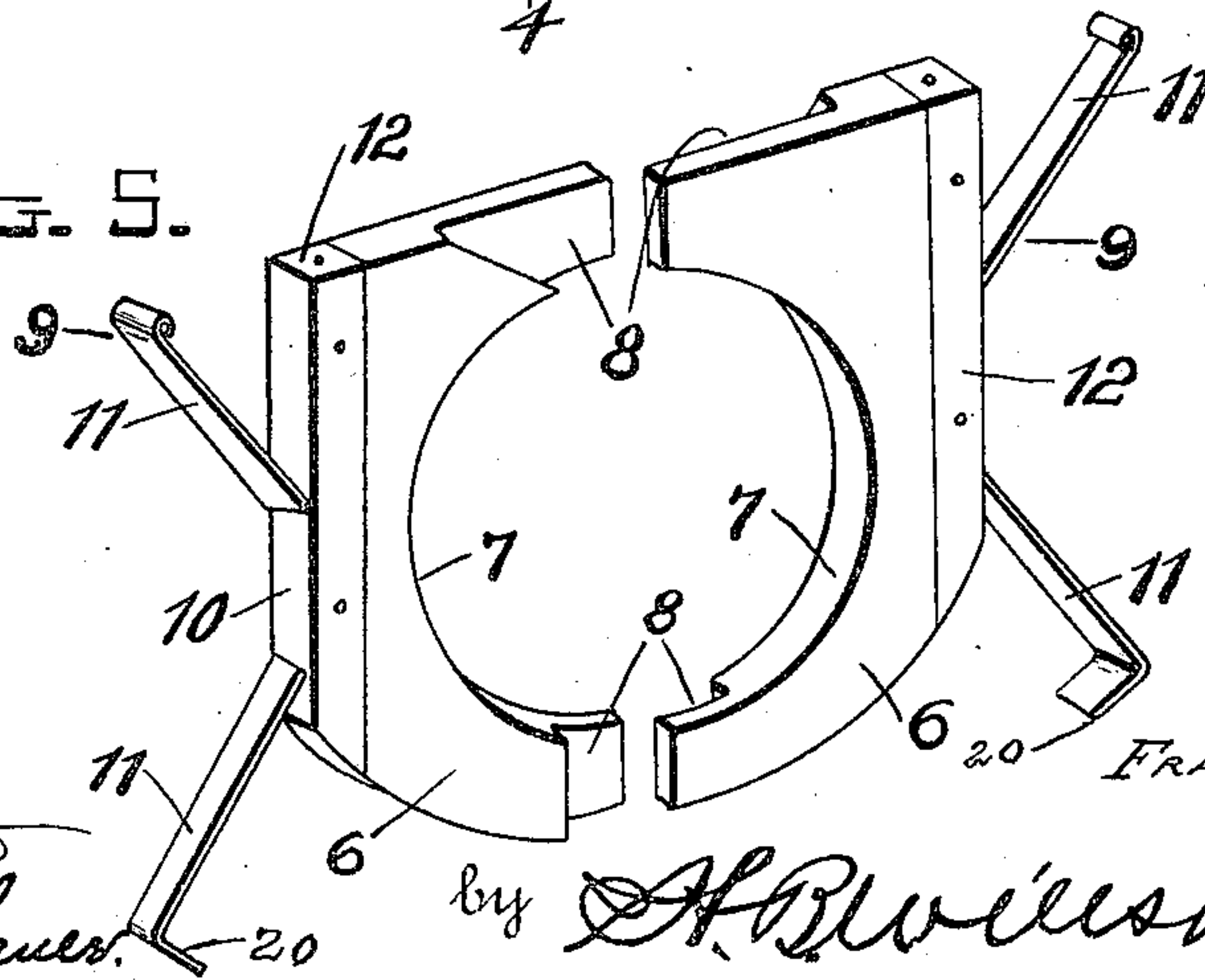


FIG. 5.



Witnesses
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UNITED STATES PATENT OFFICE

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COMBINED JOURNAL-BOX AND DUST-GUARD.

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Specification of Letters Patent.

Patented Aug. 1, 1911.

Application filed October 11, 1909, Serial No. 522,038. Renewed June 22, 1911. Serial No. 635,020.

To all whom it may concern:

Be it known that I, FRANK S. CURRIE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Combined Journal-Box and Dust-Guard; and I do 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 appertains to make and use the same.

This invention relates to improvements in combined journal boxes and dust guards for railway car axles.

One object of the invention is to provide a journal box having an improved construction and arrangement of dust guard and means whereby the dust guard plates may be engaged with the box and axle without disturbing or removing the box.

Another object is to provide a dust guard of this character the guard plates of which are yieldingly held in tight engagement with the journal or axle.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side view of a journal box and dust guard constructed in accordance with the invention; Fig. 2 is a rear or inner end view of the same; Fig. 3 is a central longitudinal sectional view; Fig. 4 is a vertical cross sectional view through the dust guard portion of the box on the line 4-4 of Fig. 3; Fig. 5 is a detail perspective view of the guard plates removed from the box, showing the plates disengaged or separated.

Referring more particularly to the drawings, 1 denotes the journal box, the outer portion of which may be of the usual or any desired construction. On the inner end of the box is formed a dust guard casing 2, said casing comprising inner and outer plates 3 and 4 which are spaced apart and connected together at their opposite side and lower edges to form the casing or inclosure for the dust guard plates. The casing 2 is open at its upper edge to permit the insertion and removal of the guard plates when desired. In the inner and outer plates 3 and 4 are formed aligned elliptical shaped openings 5 through which the car axle or jour-

nal passes to the outer portion of the journal box.

Adapted to be inserted through the open upper end of the casing 2 are dust guard plates 6 each of which is recessed, as shown at 7, to engage and snugly fit around the axle or journal of the car. The engaging portions of the plates above and below the recessed portions thereof are rabbeted, as shown at 8, and said rabbeted portions overlap when the plates are engaged with the axle so that the plates will entirely surround the axle and prevent the entrance of dust or foreign matter to the bearing portion of the journal in the box. The lower ends of the plates and the side walls of the casing 2 are curved to facilitate the insertion of the plates through the open upper end of the casing and their engagement with the opposite sides of the axle without removing or disturbing the box or other parts of the journal bearing. Secured in any suitable manner to the opposite outer edges of the plates 6 are springs 9, said springs comprising flat attaching portions 10 formed intermediate the ends of the springs and said ends are bent outwardly at a suitable angle to form casing engaging members 11, which bear against the inner walls of the edges of the casing, as shown. The outer ends of the upper casing engaging members are preferably bent in the form of a coil while the ends of the lower members 11 are bent inwardly at a suitable angle, said coiled and bent ends forming rounded surfaces to bear against the inner walls of the casing, thus preventing said ends from catching against the walls of the casing and thus interfering with the ready removal or insertion of the guard plates. I wish it to be understood that the bent ends of the lower springs provide feet 20 which contact with the side walls and bottom of the box, and serve to support the plates within the box. The guard plates 6 may be formed of any suitable material and are preferably provided along their outer side edges with reinforcing strips or casings 12 formed of sheet metal and secured to the plates in any suitable manner. Said reinforcing strips or casings may also serve as additional means for securing the springs 9 to the edges of the plates.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the

invention will be readily understood without requiring a more extended explanation.

Having thus described my invention, what I claim is:

- 5 A structure of the character described comprising a journal box with a dust guard casing at its inner end, said casing having curved outer walls and open at its upper end, dust guard plates having curved lower
10 ends for inserting the same through the upper end of the casing and between the curved walls and the journal to engage said journal, said plates having cut-away upper and lower
15 said plates also having semi-circular recesses

for the journal, reinforcements on each side of said plates having springs secured thereto at the middle portion, the upper ends of the springs having coiled terminals, and the lower ends thereof having their terminals bent inwardly to provide feet which are adapted to contact with the side walls and bottom of the box to support said plates.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK S. CURRIE.

Witnesses:

W. H. TROWE,
S. T. PAINTER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."