

No. 891,003.

A. M. RAPOPORT.
LETTER BOX.

PATENTED JUNE 16, 1908.

APPLICATION FILED NOV. 19, 1906.

2 SHEETS—SHEET 1.

FIG. 12.

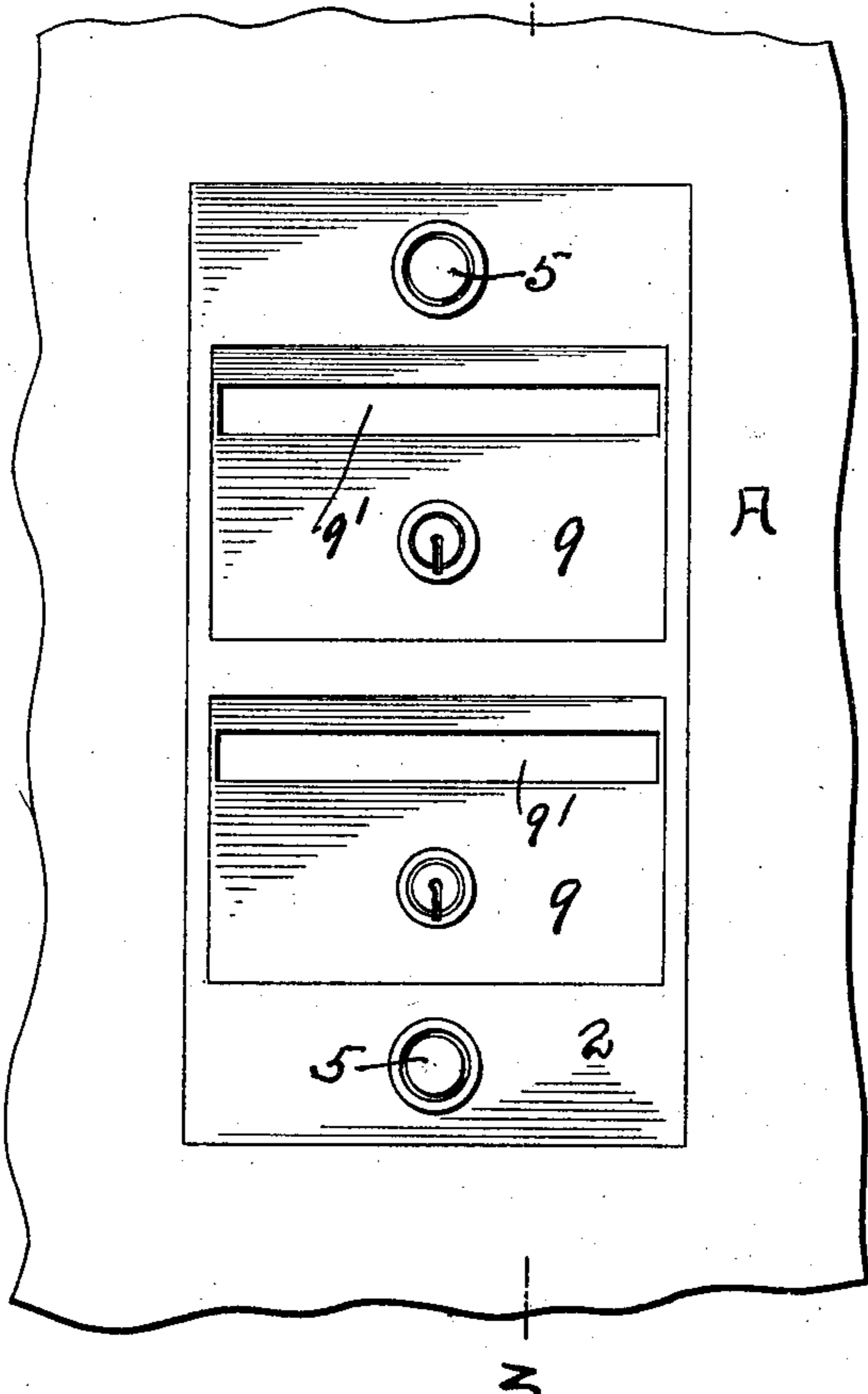


FIG. 2

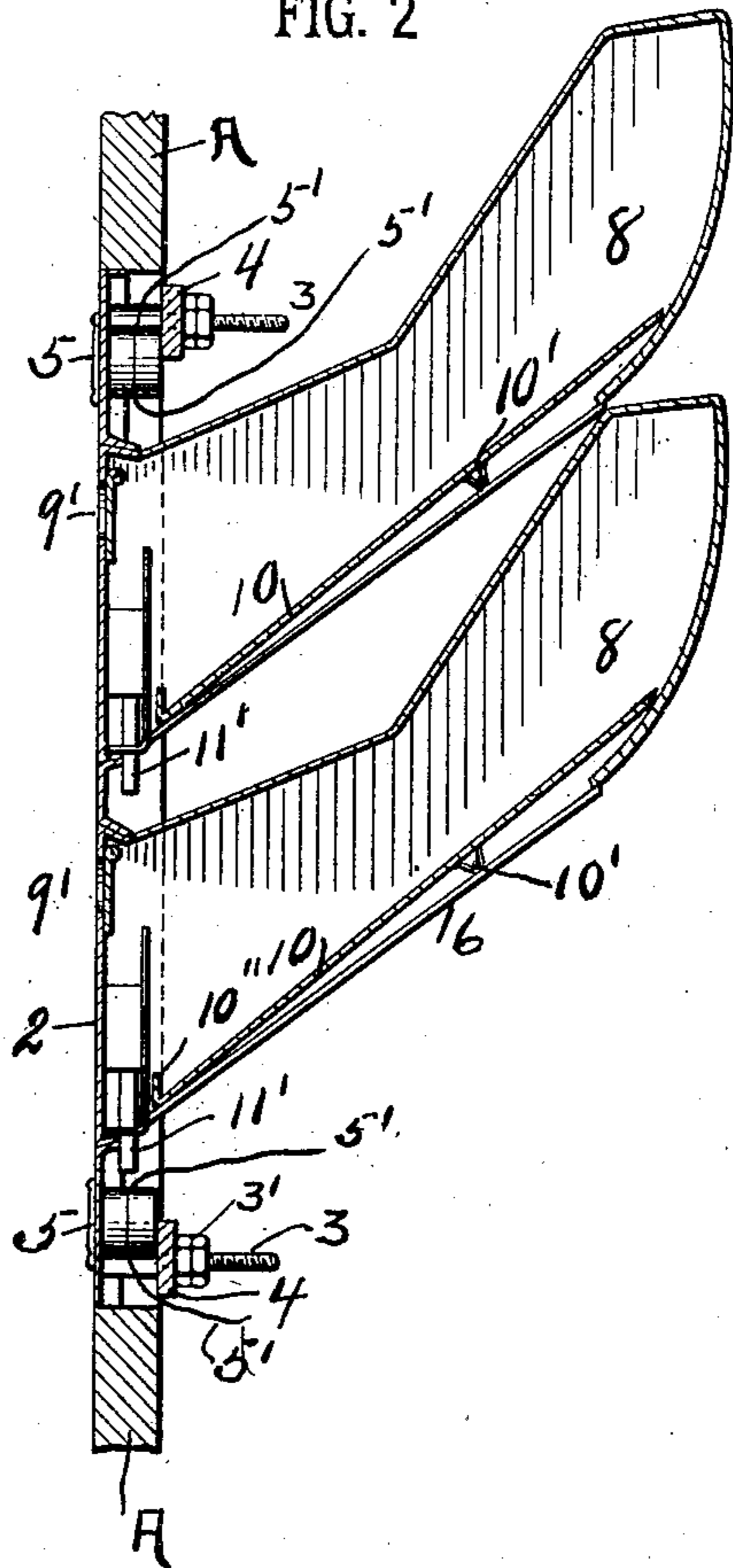
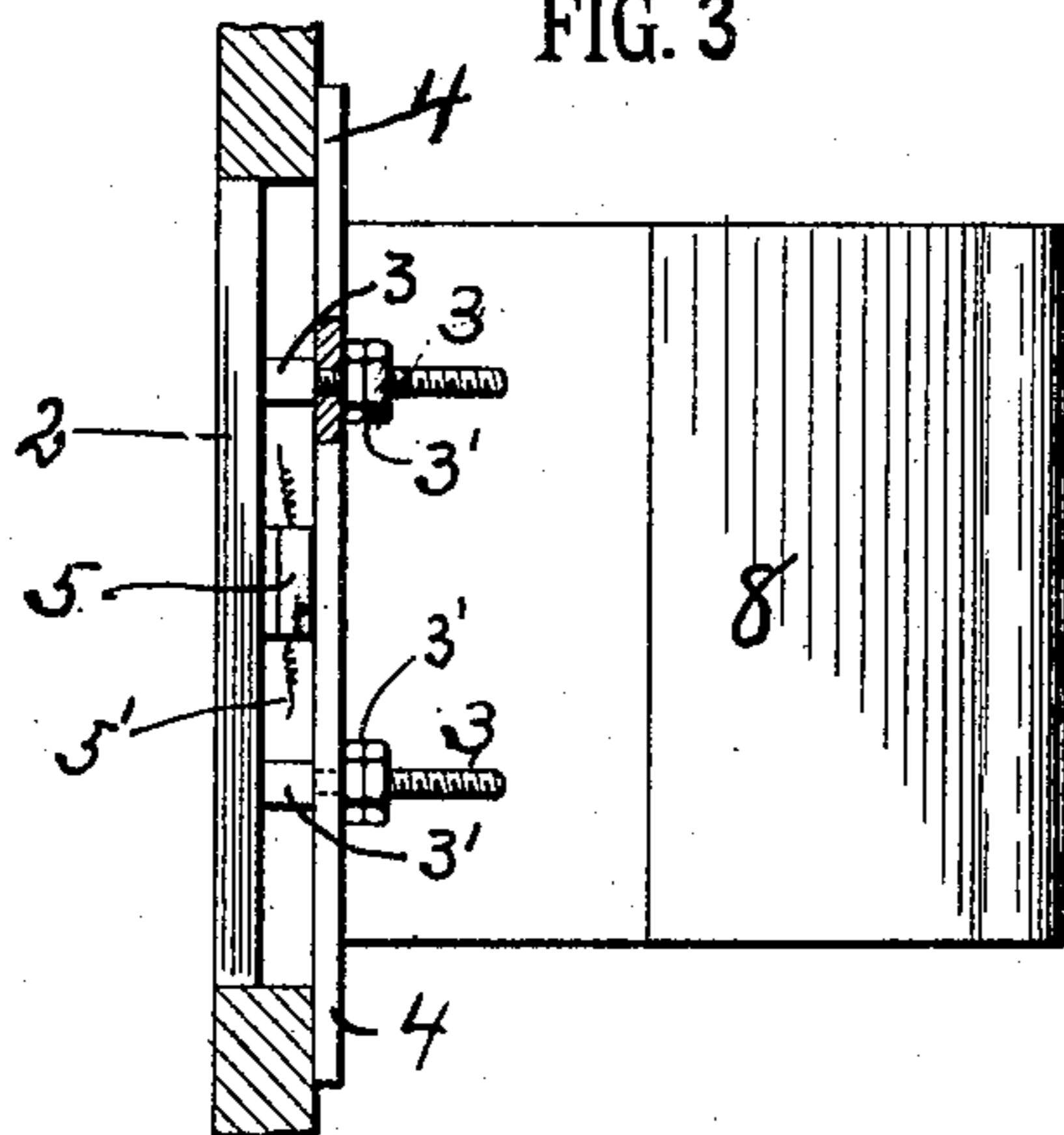


FIG. 3



Witnesses
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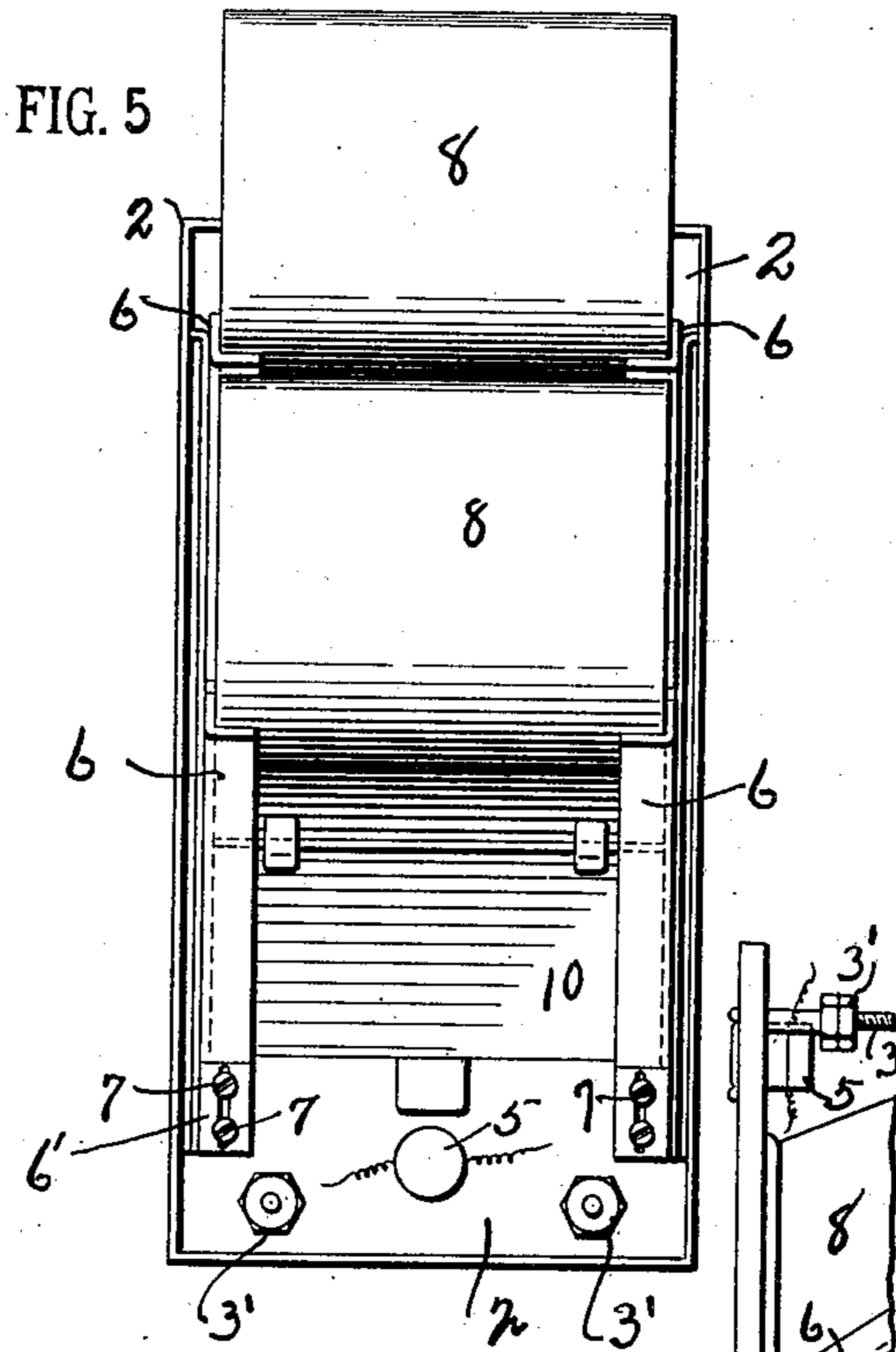
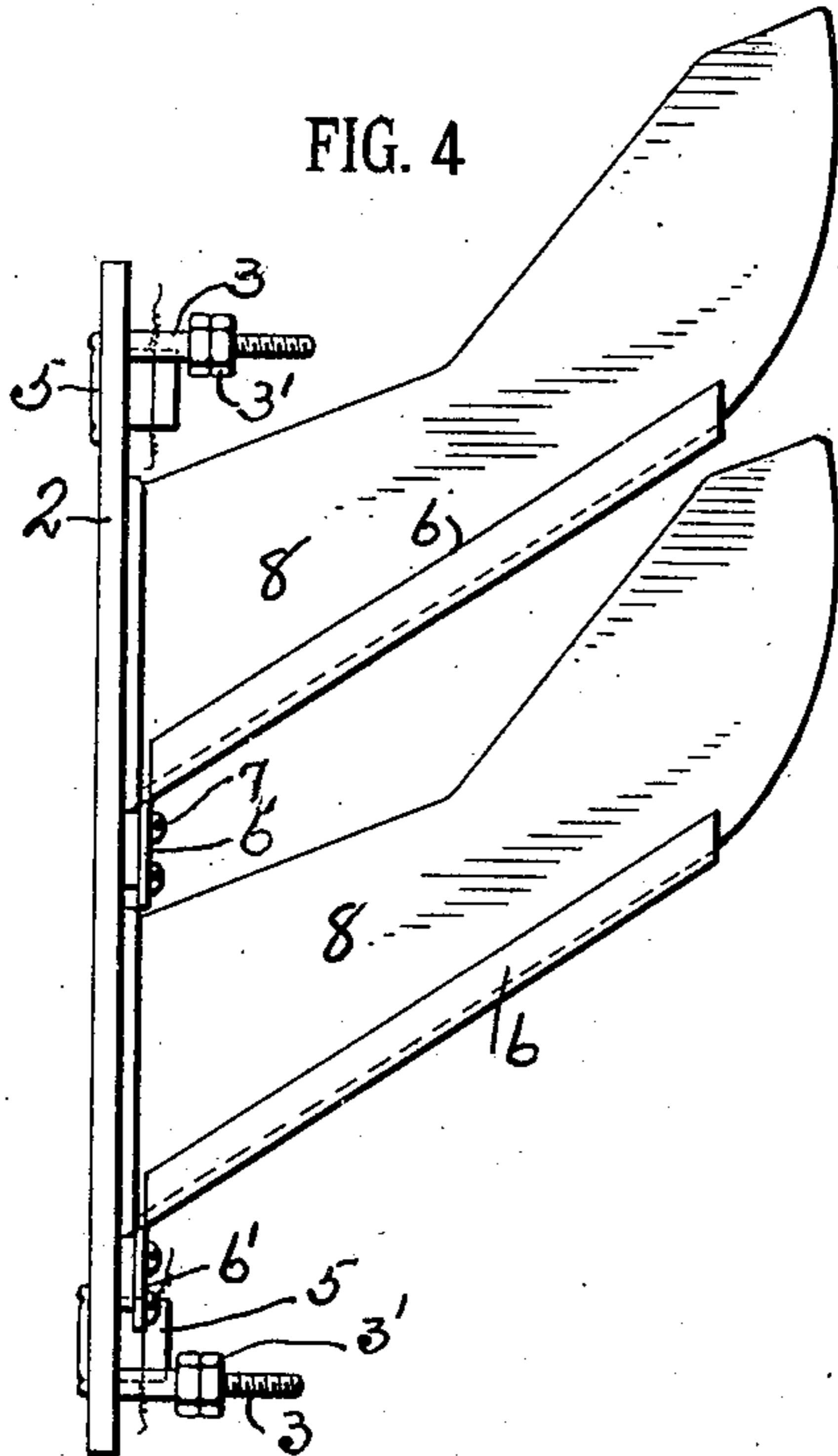


FIG. 6

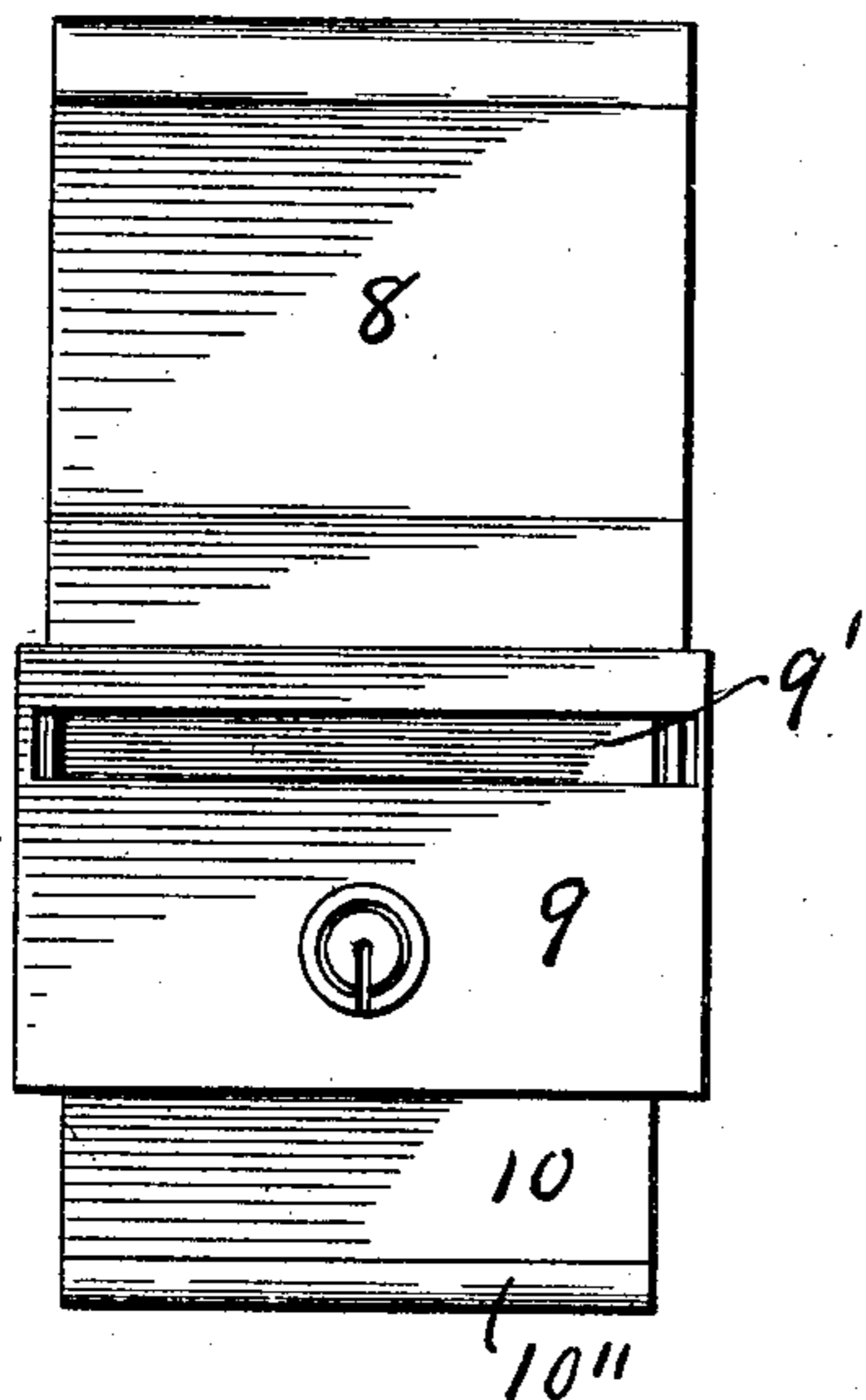
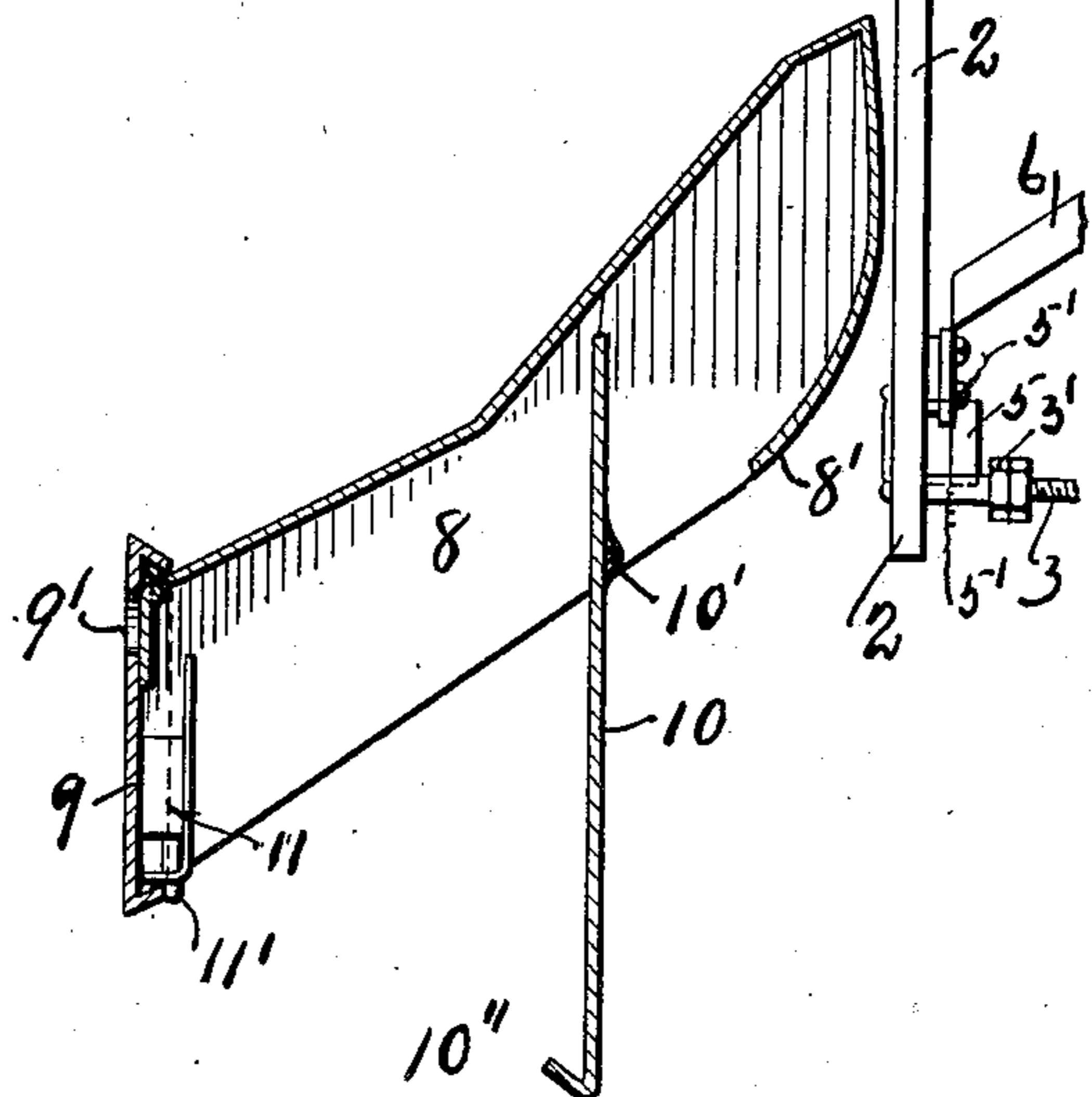


FIG. 7



Witnesses
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UNITED STATES PATENT OFFICE.

ALEXANDER M. RAPOPORT, OF NEW YORK, N. Y.

LETTER-BOX.

No. 891,003.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed November 19, 1906. Serial No. 344,046.

To all whom it may concern:

Be it known that I, ALEXANDER M. RAPOPORT, a subject of the Emperor of Russia, residing at the city of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Letter-Boxes, of which the following is a specification.

My invention relates to boxes for receiving letters and more particularly to banks or batteries of such boxes designed for use in apartment houses or like buildings where a number of tenants are to be served.

The objects of the invention are to provide for a larger number of letter boxes within the same space than is possible with the construction heretofore used, to provide means whereby any of the electric bell buttons connecting with the various apartments may be easily got at for repair or adjustment without having to remove the entire bank of boxes and to provide means for supporting the bank of boxes more solidly than by the present construction.

To these ends, my invention consists in the arrangements of parts and details of construction shown in the accompanying drawings.

Figure 1 is a front view of a bank of two letter boxes set into the usual slab. Fig. 2 is a transverse vertical section on line $z-z$, Fig. 1. Fig. 3 is a top view. Fig. 4 is a side elevation of the bank detached from its supporting slab. Fig. 5 is a rear view of Fig. 4. Fig. 6 is a front view of the box detached and open. Fig. 7 is a vertical section of said box withdrawn from the frame.

Like characters in all the figures refer to like parts.

In the drawings, A designates the usual slab of marble or other ornamental stone into which the bank of mail boxes is set.

2 designates the usual face plate of polished metal, which forms the front of the boxes.

Projecting rearwardly from the inner face thereof are posts 3, 3, which are screw threaded at their ends for the nuts 3'. There are four of these posts, one at each corner of the face plate 2 or there may be more if desired, and by their means the face plate and therefore the bank of boxes is attached to the cross pieces 4 of wood or other material which span the opening in the slab A. The boxes as will be later described are removable and form removable closures to the

openings of the face plate and by removing the mail boxes and thus opening the face plate these cross pieces may be easily and quickly adjusted across the opening in the slab and the nuts screwed down tightly so as to give secure and firm support to the bank. This method of attachment is very plainly shown in Fig. 3.

Between the openings for the sliding boxes in the face plate 2 are located the apertures for the insertion of the electric buttons 5 of usual construction having the wires 5' leading to the electric bells in the various apartments. Below each of the box apertures are attached the upwardly inclined tracks 6 of angle iron which extend rearwardly and upwardly almost the full length of the mail boxes in order to give a sufficient support to the same. The lower flanges of the angle irons also act to hold the pivoted bottom of the mail box closed when the box is in place in its opening. At their lower ends the angle irons 6 are downwardly bent as at 6' and slotted for the passage of one or more screws 7 which enter the face plate 2. By slotting the ends of the angle irons they are made adjustable and by the use of the two screws (see Fig. 5) they are held rigidly in position and against any lateral turning. By this means, however, they may be adjusted to suit any minor inequalities in the box and the smooth running of the box upon the tracks is thus assured. The boxes 8 are each made in the form of an upwardly inclined drawer having an ornamental face plate 9 on the front end adapted to fit snugly in and act as closures for the openings in the face plate 2. The box face plate 9 is provided around its margins with the inwardly turned flanges 9' shown particularly in Figs. 2 and 7. These flanges are convergently inclined and contact with inwardly extending convergent flanges which project inward from the edge of the mail box openings of the face plate 2. This is simply a strengthening means and a means whereby close contact is gotten between the face plate of the letter box and the edge of the letter box opening. The box and the battery face plate 2 may be constructed in any other manner if desired, as this is not a matter of importance.

The rear lower corner of each of the boxes is slightly curved as at 8' in order that letters inserted through the letter opening 9' of the plate 9 may not be impeded but that the end of the letter may rise up to the upper corner

of the box 8 and the lower end thereof may fall against the bottom of the box. It is intended that the box shall be made of a depth to fully occupy the space between the usual slab A and the brick wall at the rear. Inasmuch as no supporting pieces of wood are required at the rear of the box, that much space is saved and the box is correspondingly elongated. At the same time by inclining it upward, additional length is given.

For the reason that the greatest length of my mail box extends rearwardly instead of downwardly, the boxes constructed according to my principle contain as many letters as the vertical boxes usually used, while at the same time the vertical length of the face of the battery or bank is reduced at least one-third, thus reducing the waste of marble necessitated by cutting out the opening to accommodate the bank and allowing of a larger number of boxes within the same space.

While any form may be given to the box consistent with the above description, yet I prefer the form shown in the figures; that is, where the bottom of the box extends directly back, rearwardly and upwardly while the top of the box is inclined slightly upward from a line at right angles with the front thereof and then extends rearwardly at a greatly increased angle. I find that this tends to distribute the letters more evenly in the box and to throw their lower edges downward against the bottom 10. This bottom, as seen in Fig. 7, is pivoted as at 10' to the sides of the box and at its lower end is provided with a turned up flange 10'' which prevents the letters falling out too rapidly when the door is opened and also prevents any tendency of the letters to slip out at the lower end of the box when the door is closed, as the upturned flange 10'' fits closely against the inner face of the mail box lock 11. This lock may be of any ordinary construction but the bolt 11' thereof is designed when turned down to engage on the inside face of the bottom of the box opening in the casing 2, as shown in Figs. 2 and 5, thus preventing the box from being pulled out. When the bolt is raised by the turning of the letter box key, it escapes the margins of the opening in the face plate 2 and thus the box may be withdrawn as shown in Fig. 7 the inwardly projecting flanges of the angle iron track thus preventing the falling down of the door 10 until the box has been completely removed. As soon as completely withdrawn the door 10 opens and the contents fall out or may be otherwise removed.

The advantages of my construction are compactness, ease of adjustment into place, convenience in getting at and repairing the electrical connections, and the accessibility of the lock when it is desired to repair the same, or if a new key is to be fitted thereto.

One of the particular advantages of my invention resides in the ease with which the connections to the electric buttons may be repaired. It is not necessary with my construction to remove the entire bank of boxes in order to repair said connections. The removal of one of the boxes permits easy access to the electrical connection of the button belonging thereto, the box when in position acting as a locked closure to the opening. Thus there is no chance of breaking or short circuiting the other wires belonging to other apartments or boxes. This is a very important point when it is considered how often the button connections get out of order and how often they have to be repaired.

Having described my invention what I claim is:

1. In a battery of mail boxes a face plate, posts extending rearward from said face plate and adapted to support the said battery of boxes, said face plate having an opening normally closed by a removable closure, and means for locking the said removable closure to obstruct said opening and prevent any operation on said posts to detach said battery.

2. In a battery of mail boxes, a face plate, mail boxes supported therein, means entirely on the interior of said plate for attaching and supporting the said battery of boxes, said plate having openings through it normally closed by a removable closure, and means for locking said closure.

3. In a battery of mail boxes, a face plate, mail boxes supported therein, screw threaded posts extending rearward from said plate, a cross piece extended on either side beyond the face plate of the said battery, and means on the posts to engage with said cross piece for supporting said battery, said face plate having an opening through it normally closed by a removable closure adapted to be locked into place.

4. In a battery of mail boxes, a face plate, mail boxes supported therein, screw threaded posts extending rearward from said plate, a cross piece extended on either side beyond the face plate of the said battery, and means on the posts adapted to engage with the said cross piece to draw it towards the said face plate, said face plate having an opening therethrough normally closed by a removable closure and having means adapted to be locked in place whereby admission may be gained to the rear of the face plate.

5. In a battery of mail boxes, a face plate having a vertical series of openings therein, and a vertical series of removable boxes each box having a rear portion, each inclined upward and rearward from the front, and the face of each box being vertical and in the same plane with the front of the battery face plate, guides rearward on the rear of said face plate in which the boxes slide and a

flange on the front end of each box adapted to engage with the face plate to prevent the withdrawal of the box from the rear.

6. In a battery of mail boxes, a face plate, and a series of removable boxes attached thereto, each box having an upwardly inclined bottom rounded at its juncture with the rear end.

7. In a battery of mail boxes, a face plate, and a series of boxes attached thereto, each box having a top extending rearward at nearly a right angle with the face plate, then sharply inclined upward to a point above the top of the front opening of the box above.

8. In a battery of mail boxes, a face plate having a series of mail box openings therein, and boxes adapted to be supported in said openings, said boxes being inclined upward and each removable from the said openings.

9. In a battery of mail boxes, a face plate having a mail box opening, a removable mail box obstructing said opening having means whereby it may be locked in place, and posts extending rearward from the inside of the plate and adapted to support said battery of boxes.

10. In a battery of mail boxes, a face plate having a mail box opening therein, and a box adapted to be removably supported in said opening, said box having a fixed front plate, fixed sides, top and back, and a pivoted bottom said face plate being provided with means for holding the bottom closed when the mail box is in place in said opening.

11. In a battery of mail boxes, a face plate having a series of mail box openings therein, and a series of mail boxes adapted to be supported in said openings, said boxes being slidably removable from said openings and having pivoted bottoms said face plate being provided with means for holding the bottom closed when the mail box is in place in said opening.

12. In a battery of mail boxes, a face plate having a mail box opening therein, and a mail box adapted to be removably supported in said opening, said mail box having a fixed front plate and a pivoted bottom provided with an upwardly turned flange at its free end, said box inclining upward and rearward from the front plate.

13. In a battery of mail boxes, a face plate having a mail box opening therein, upwardly inclined guides attached to the rear side of said face plate, and an upwardly inclined mail box adapted to be inserted in said opening and to rest upon said guides.

14. In a battery of mail boxes, a face plate having a mail box opening therein, upwardly inclined guides attached to the rear side of said face plate within the line of the ends of said opening, and an upwardly inclined mail box adapted to be inserted in said opening and to rest upon said guides, said mail box having a pivoted bottom closed by said

guides when the mail box is in position within the opening.

15. In a battery of mail boxes, a face plate having a mail box opening therein, upwardly inclined guides of angle iron attached to the rear side of said face plate, the lower flange of said guides projecting inwardly within the line of the ends of said opening, and an upwardly inclined mail box adapted to be inserted in said opening and to rest upon said guides, said mail box having a pivoted bottom held closed by said guides when the mail box is in position within the opening.

16. In a battery of mail boxes, a face plate having a mail box opening therein, upwardly inclined guides attached to the rear side of said face plate within the line of the ends of said opening, said guides having a downwardly bent slotted portion at their lower ends, and screws passing through said slots and entering the face plate, and an upwardly inclined mail box adapted to be inserted in said opening and to rest upon said guides, said mail box having a pivoted bottom held closed by said guides when the mail box is in position within the opening.

17. In a battery of mail boxes, a face plate having an opening for the reception of the mail box, a mail box adapted to be supported in said opening and removable therefrom, said mail box having a face plate, and a lock on the interior of the face plate, the bolt of said lock being adapted to engage behind the sill of the face plate opening.

18. In a battery of mail boxes, a face plate having a series of openings for the reception of the mail boxes, a series of mail boxes adapted to be supported in said openings and each removable therefrom, independent of the other, each of said mail boxes having a face plate, and a lock on the interior of the face plate, the bolt of said lock being adapted to engage behind the sill of the face plate opening.

19. In a battery of mail boxes, a face plate having a series of openings for the reception of the mail boxes, a series of mail boxes adapted to be supported in said openings and each removable therefrom, independent of the other, each of said mail boxes having a fixed face plate, a pivoted bottom, and a lock attached to the interior of the face plate and adapted to engage with the sill of the said mail box opening in the face plate.

20. In a battery of mail boxes, a face plate, electric buttons supported therein and having connections to an electrical circuit at the rear of said face plate, said face plate being provided with a series of openings through which access may be had to the electrical connections of said buttons, in combination with a series of mail boxes adapted to be removably supported in said openings of the face plate to close the same.

21. In a battery of mail boxes, a face plate,

electric buttons supported therein and having connections to an electrical circuit at the rear of said face plate, said face plate being provided with a series of openings through which access may be had to the electrical connections of said buttons, in combination with a series of mail boxes removably supported in said openings and each of said mail boxes being independent of the other and adapted to be entirely removed from the face plate.

22. In a battery of mail boxes, a face plate, electric buttons removably inserted therein and having connections to an electrical circuit at the rear of said face plate, said face plate being provided with a series of openings through which access may be had to the electrical connections of said buttons, in combination with a series of mail boxes removably supported in said openings, and each of said mail boxes being independent of the other and adapted to be entirely removed from the face plate.

23. In a battery of mail boxes, a face plate, electric buttons attached to said face plate and projecting inward into the space between the mail boxes, and each having connection to an electrical circuit at the rear of said face plate, said face plate being provided with a series of openings through which access may be had to the electrical button adjacent to

the said opening, in combination with a series of mail boxes removably supported in said openings, and each of said mail boxes being independent of the other and adapted to be entirely removed from the face plate, and each of said mail boxes having a lock engaging with the edge of its particular mail box opening to prevent the withdrawal of said box.

24. In a battery of mail boxes, a face plate having a series of openings therein for the reception of mail boxes, mail boxes each independent of the other removable from said openings but when in place projecting rearwardly from the face plate, locks on said boxes for preventing their withdrawal from the face plate, and rearwardly projecting posts on said face plate adapted to engage with means for supporting the battery and so placed as to be accessible from some of the mail box openings when the boxes thereof are removed.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 14th day of November 1906.

ALEXANDER M. RAPOPORT.

Witnesses:

FREDERIC B. WRIGHT,
JOSEPHINE A. VERNON.