

No. 639,123.

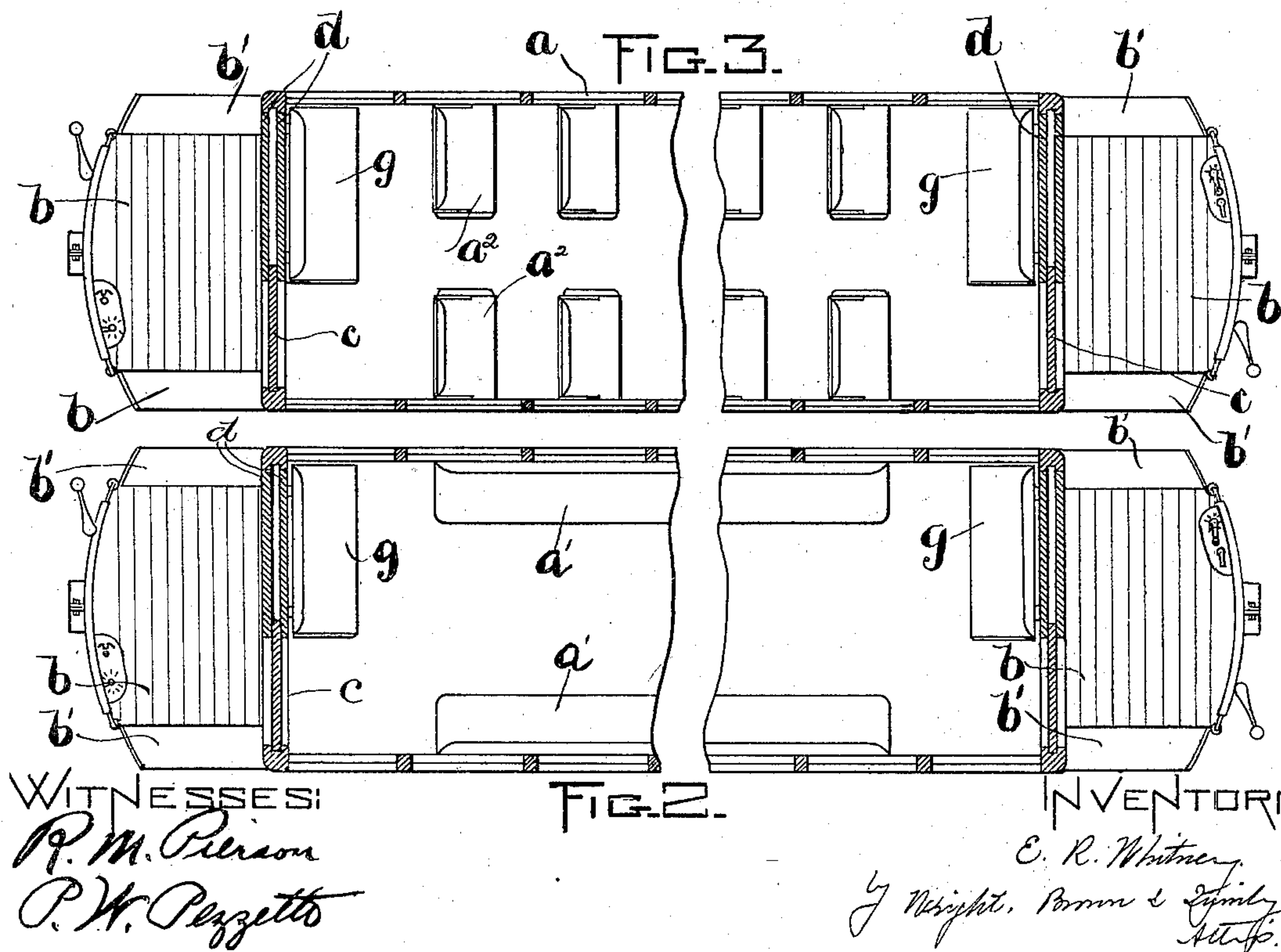
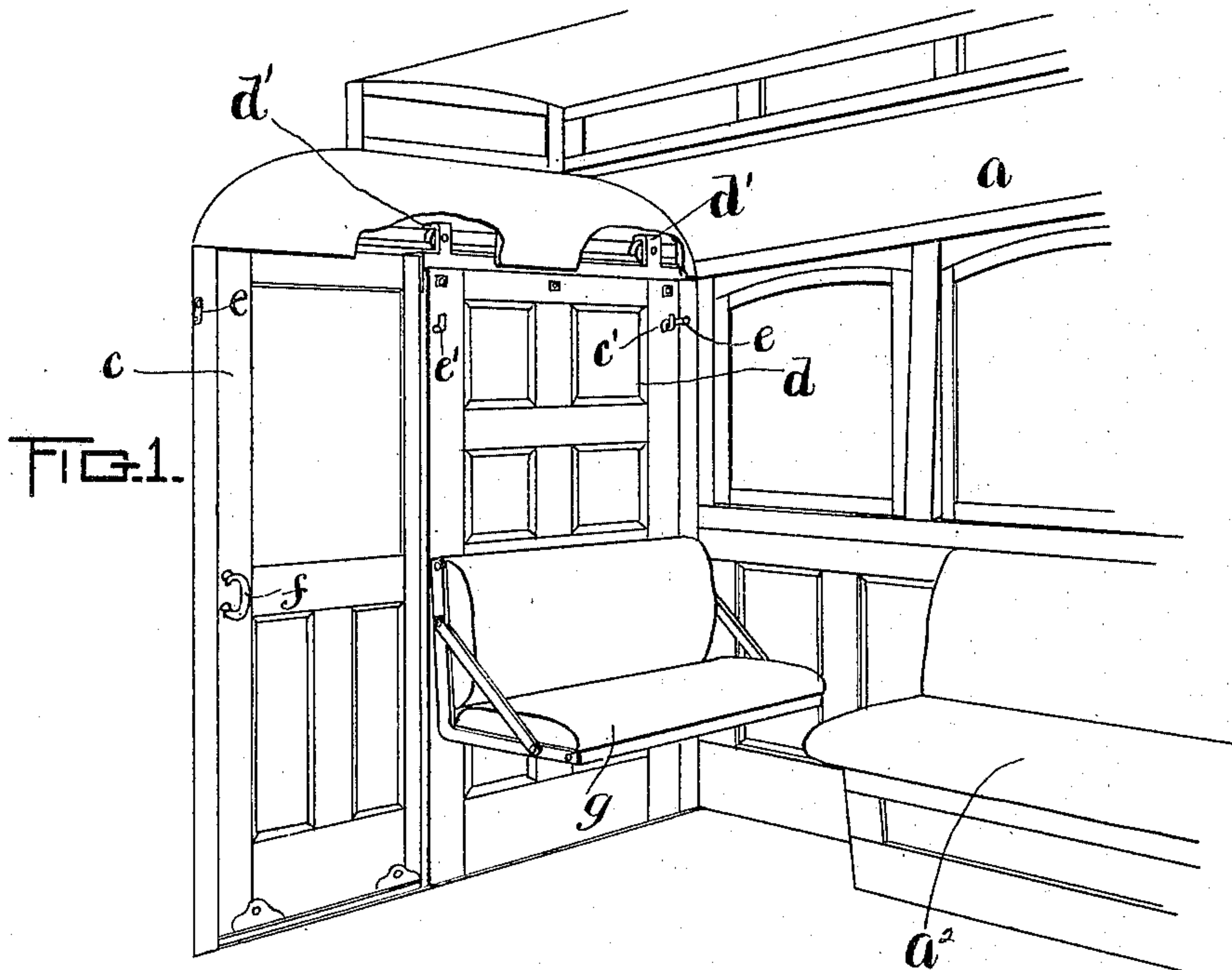
Patented Dec. 12, 1899.

E. R. WHITNEY.
STREET CAR.

(Application filed May 5, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:
P. M. Pearson
P. W. Pezzetto

INVENTOR
E. R. Whitney
by Wright, Brown & Smith
Attys.

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(Application filed May 5, 1899.)

(No Model.)

2 Sheets—Sheet 2.

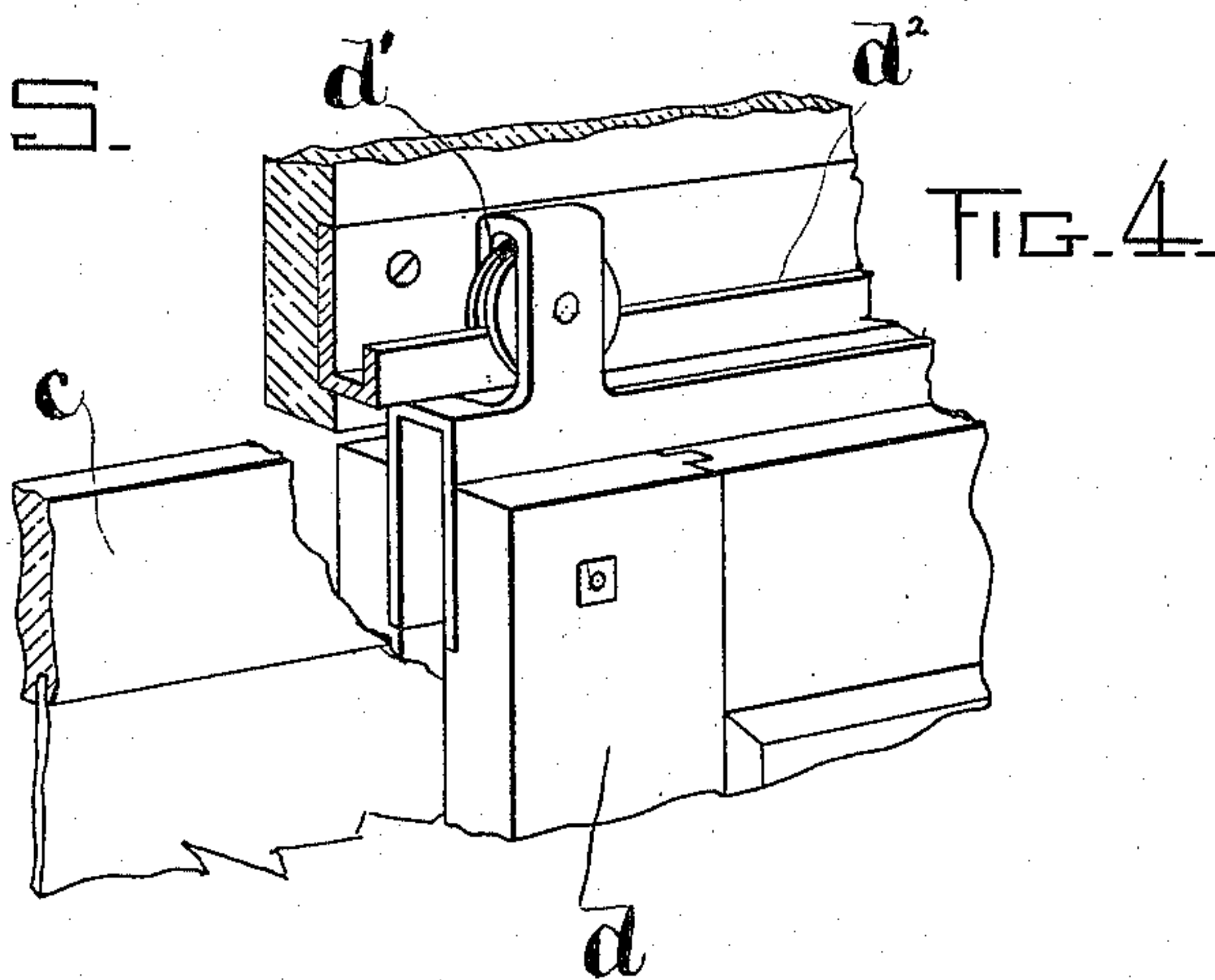
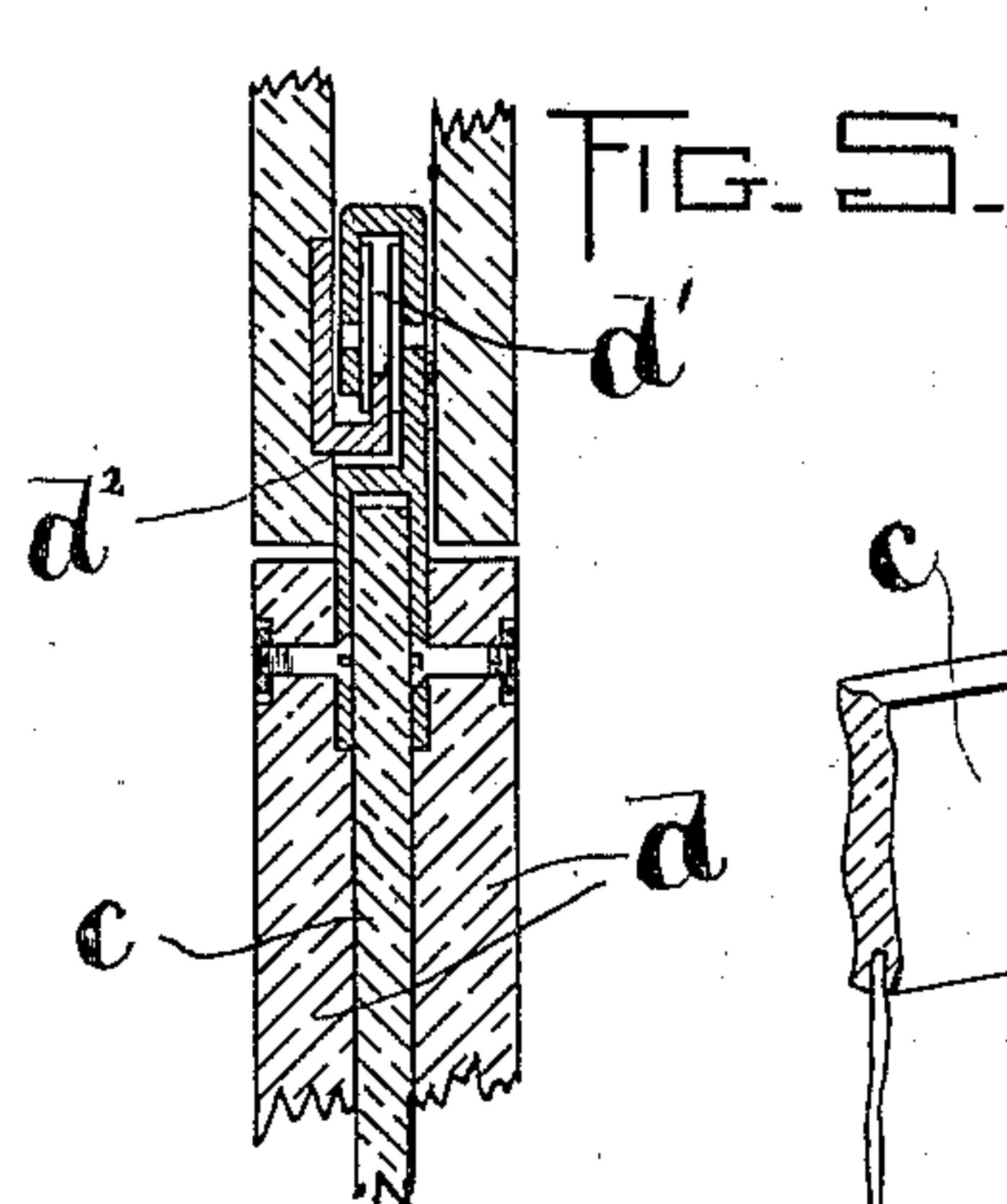


FIG. 6.

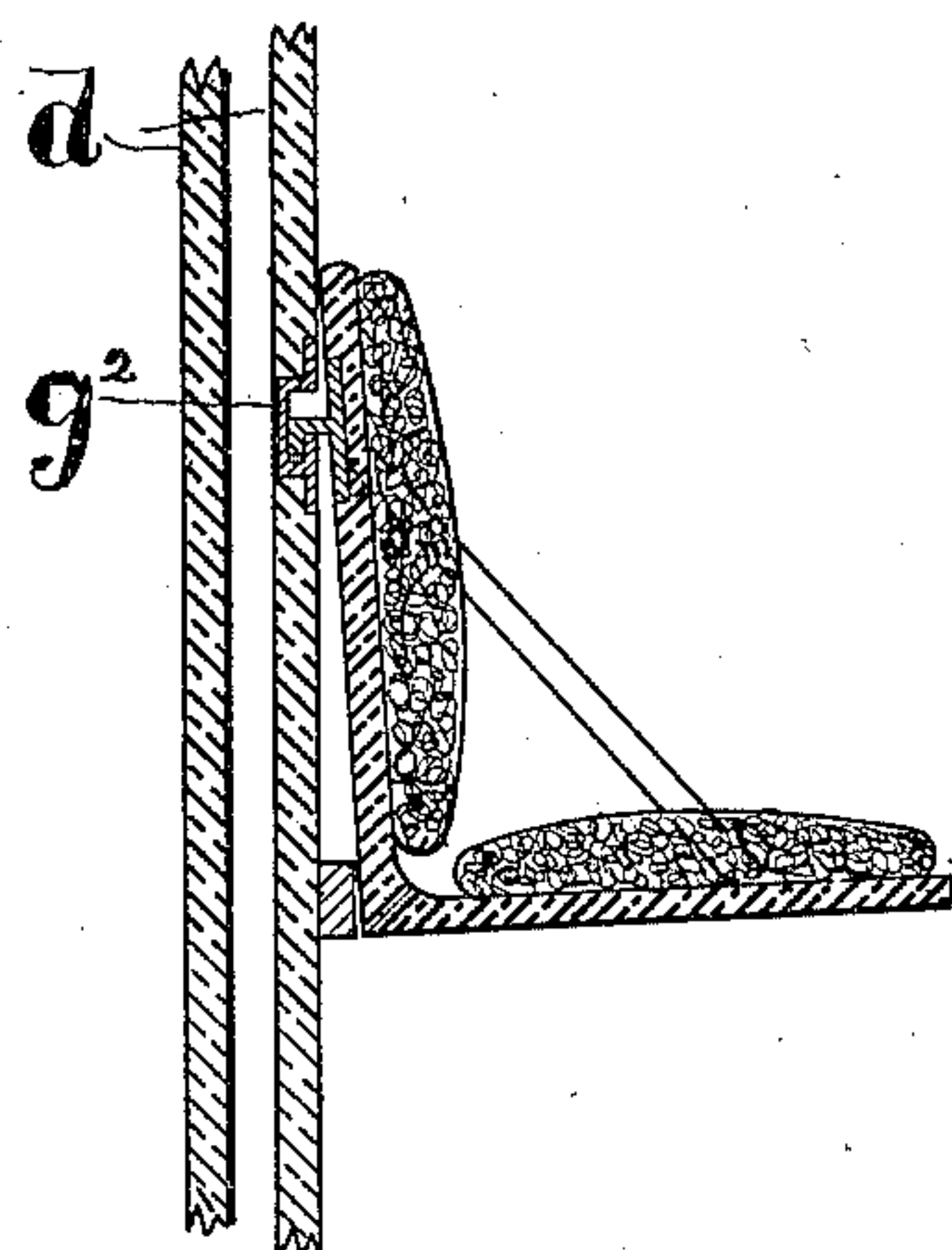
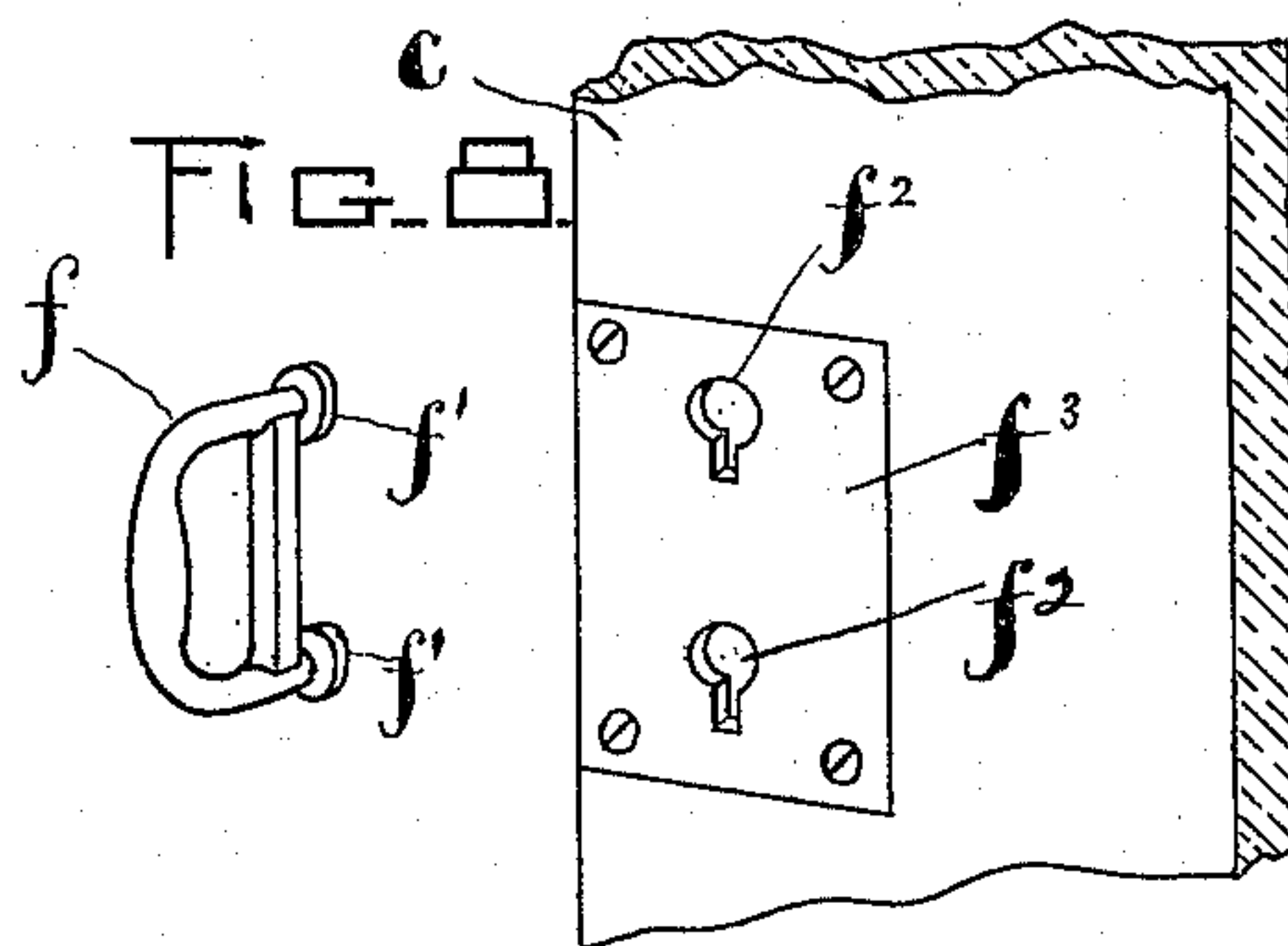
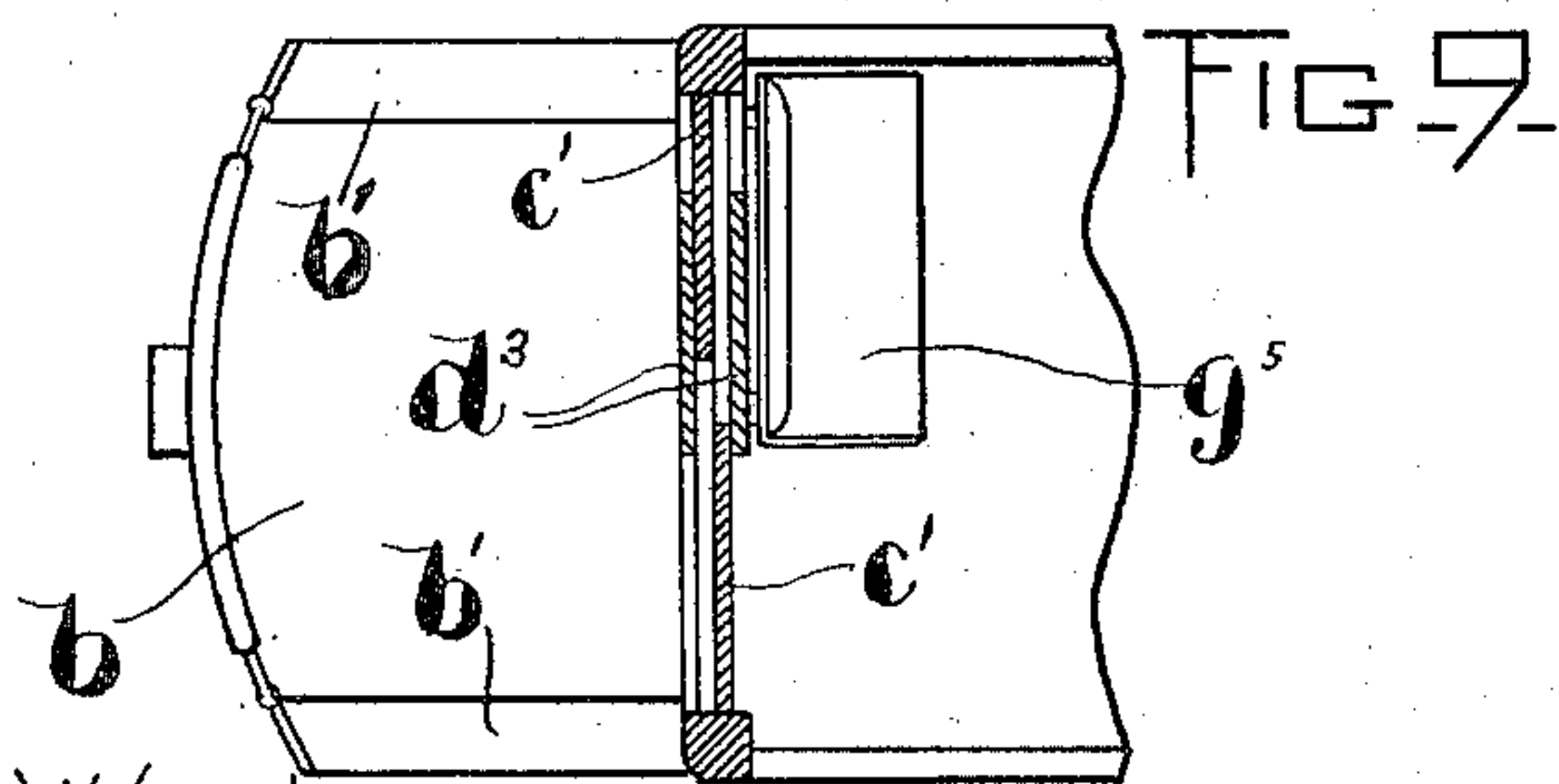
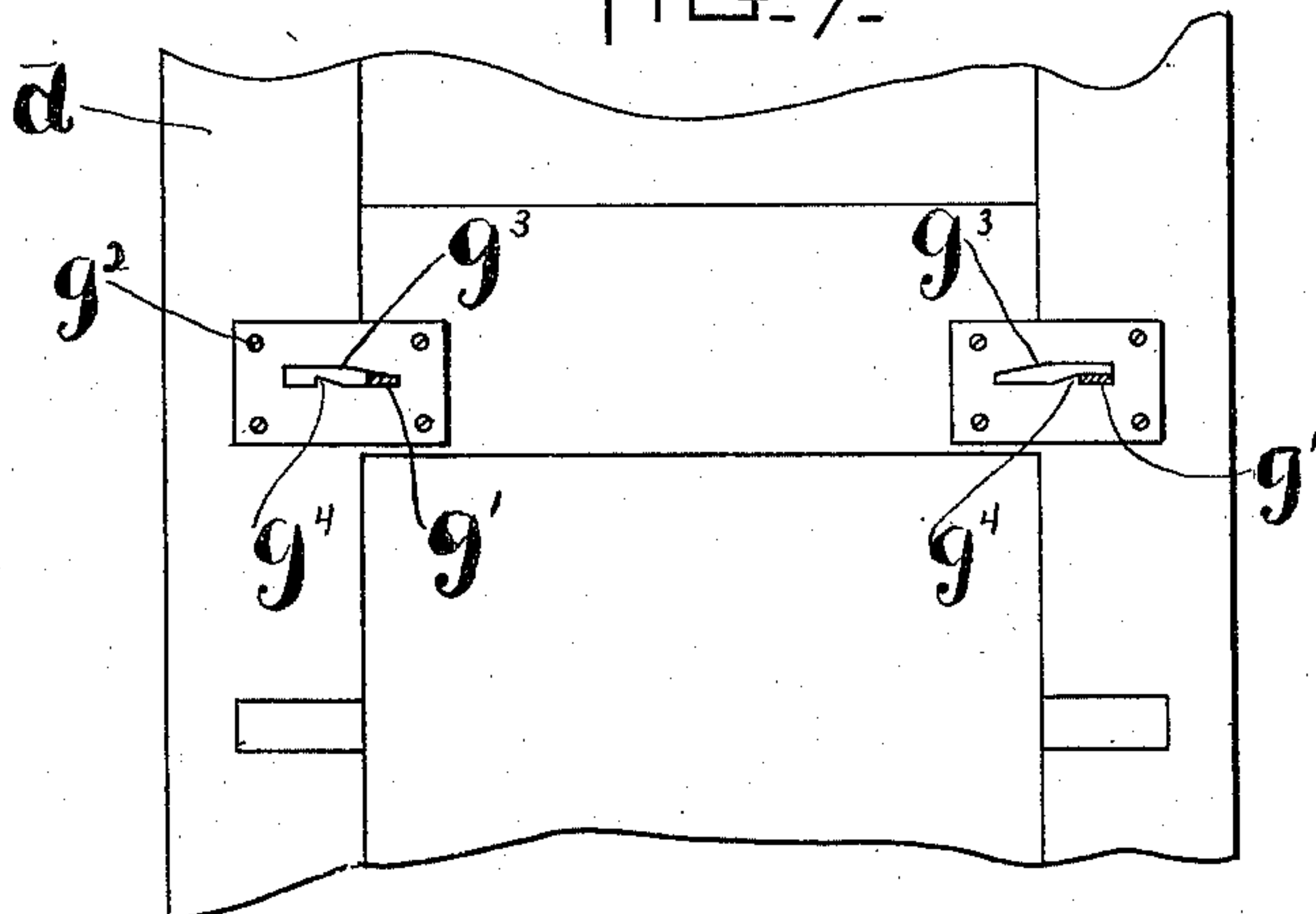


FIG. 7.



WITNESSES:

R. M. Pierson
P. W. Pezzetto.

INVENTOR:

C. R. Whitney
By Wright, Brown & Smith
Attys.

UNITED STATES PATENT OFFICE.

EDDY R. WHITNEY, OF LYNN, MASSACHUSETTS.

STREET-CAR.

SPECIFICATION forming part of Letters Patent No. 639,123, dated December 12, 1899.

Application filed May 5, 1899. Serial No. 715,669. (No model.)

To all whom it may concern:

Be it known that I, EDDY R. WHITNEY, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Street-Cars, of which the following is a specification.

This invention relates to street-cars; and it has for its object to provide improved means of ingress and egress to and from the same.

Street-cars in use at present, as is well known, are ordinarily equipped with sliding doors at each end, the doorway being in the middle of the car end and the door sliding into a pocket composed of a double partition at one side of the doorway. The objection to this arrangement is that when the platform or platforms are crowded passengers getting into and out of the body of the car are obstructed, and those occupants of the platform on the side of the door toward the step which is in use are necessarily disturbed more or less by such ingress and egress. In order to overcome this difficulty, it has been proposed to provide street-cars with a door at the end, opening from one side of the car toward a fixed panel or pocket on the other side, so that ingress and egress are across one corner of the platform only. The doorways, however, by this arrangement are usually placed diagonally opposite to each other in the two ends of the car, so that the use of the front door is rendered extremely inconvenient when the passengers are allowed to step onto and off from the platforms only on one side, the other side being closed by a gate or otherwise. It has also been proposed, with the object of overcoming the difficulties mentioned, to provide a car with two doors at each end, adapted to slide by each other, the door not in use (usually that on the left side of the car looking forward) being locked. This arrangement, however, is open to the objection that there is no pocket for the door to slide into, and the movement of the door is apt to be obstructed on many occasions. The present invention contemplates the provision of a car having a movable double panel or pocket for the door, which may be moved to provide a doorway at either side of the car, and a door or doors adapted to slide into and out of said pocket. By an organization of parts constructed in accordance with the succeeding

description the doorway may be brought to the outward side of the car at both ends, thus overcoming in a novel and practicable manner the difficulties above alluded to.

The invention consists in the novel features of construction and arrangement which I shall now proceed to describe and claim.

Of the accompanying drawings, Figure 1 represents a perspective view of one end of a street-car constructed in accordance with my invention, the said car having a longitudinal seating arrangement. Fig. 2 represents a horizontal sectional view thereof. Fig. 3 represents a horizontal sectional view of a car having a cross-seating arrangement. Fig. 4 represents a detail perspective view, on an enlarged scale, showing the door-and-panel construction. Fig. 5 represents a vertical sectional view thereof. Fig. 6 represents a vertical sectional view showing a construction for the end seat. Fig. 7 represents a section on line 7 7 of Fig. 6. Fig. 8 represents a detail perspective view of a form of door-handle which may be employed. Fig. 9 represents a horizontal sectional view of one end of a car, displaying a modification of my invention.

The same reference characters indicate the same parts in all the figures.

In the drawings, *a* is the body of the street-car, *b b* are the platforms at either end, having steps *b' b'*, and *c c* are doors. The said doors, as shown in Figs. 1, 2, and 3, are located in doorways, which are situated at one side of the median longitudinal line of the car, and at the other side of the car are located double panels or pockets *d d*, between the walls of which the doors *c* are adapted to be slid when opened. The panels *d* are movable and are arranged to slide across the car from one side to the other. They are also provided with suitable fastening devices, such as the hooks *e*, pivoted to the frame of the car and adapted to engage the pins *e'* on the panel *d*, by which means they can be locked in place on either side. To provide for the easy movement of the panel, it may be equipped on its upper edge with roller-hangers *d' d'*, supported on a track *d²*, which is affixed to the car-frame above the doorway and extends from side to side of the car. By the described arrangement a doorway can be made on either side

of the car, and the door may be employed to open and close said doorway in the ordinary manner. When the doorway is changed from one side of the car to the other, the door *c* is
 5 slid clear through the partition *d*, said partition being open at both ends for this purpose, and in order to permit the door to be slid through the panel it is desirable to provide said door with handles on both edges, which
 10 may be either moved into an unobstructing position or entirely detached from the door when the shifting takes place. Fig. 8 shows a detachable handle *f*, having flanged ends *f'* *f'* adapted to be passed through buttonhole-slots *f*² *f*², formed in a plate *f*³, which is attached to the door *c*. The necks on the ends of the handle behind the flanges *f'* *f'* normally occupy the narrower portions of the slots *f*², thus securing the handles in place on
 20 the door. The handles have merely to be detached from one edge of the door, as represented in Fig. 8, when the door is passed through the panel and reattached at the other edge. In Figs. 2 and 3 the car is shown as
 25 adapted for ingress and egress from the side which is lowermost in the said figures, the doors *c* opening and closing from this side at both ends of the car. It is obvious, then, that passengers entering and leaving the car will
 30 pass across only one small corner of either platform on said side.

My invention is adapted for either a longitudinal or cross seating arrangement, the former being shown in Figs. 1 and 2 and the latter in Fig. 3. With doors arranged in the manner described in order to provide for the ready ingress and egress of the passengers it is necessary to shorten or leave out a portion of the seats on both sides of the car, as
 40 represented; but to the end that all of this seat-room may not be lost it is desirable to provide the car with an extra movable seat or seats to fill up the space or spaces on the side of the car opposite the doorway. Such a seat
 45 *g* is shown in the drawings extending transversely or crosswise of the car and attached to the panel *d*, so as to be shifted with said panel when the latter is shifted. This seat may conveniently have a capacity for three
 50 persons, and in the arrangement shown it is hung from the panel by means of hooks *g'* *g'* entering slotted socket-pieces *g*² *g*², secured to the panel. The slots *g*³ in said socket-pieces are elongated, so as to permit a limited
 55 movement of the seat with respect to the panel, whereby the seat may be made to fit snugly up against either side of the car-body, and lugs *g*⁴ are formed on the lower edges of the slots to confine the hooks *g'* when the seat
 60 is in place.

Fig. 9 shows a modification in which the end of the car is provided with two doors *c'* *c'*, both of which are adapted to open and close into a central double panel *d*³. In this
 65 case the doors are not slid clear across the car

when the direction of the car is changed, but each is opened and closed on its side of the car only, the door which is not in use being preferably locked. The panel *d*³ is constructed and arranged to have a limited movement transversely of the car, and while its width is such that if it occupied a position exactly midway of the car there would not be two doorways of ample size on either side of it, yet by reason of its movability it may be
 75 slid toward either side of the car, so as to give a sufficient doorway on the other side, and may then be locked in place. In this arrangement an extra seat *g*⁵ is preferably provided, as in the arrangement previously described. Said seat may be hung from the panel *d*³ and have an extra support on the side of the car-body, or it may be otherwise suitably supported.

I do not confine myself to the exact details of construction and arrangement above described, as the same may be variously modified without departing from the spirit of my invention.

I claim—

1. A street-car having at each end a double-walled panel or pocket movable transversely of the car to provide a doorway at either side of the longitudinal center of the car, and a door adapted to open from the side
 95 of the car into said panel.

2. A street-car having at each end a double-walled panel or pocket movable transversely from side to side of the car to provide a doorway at either side of the longitudinal center of the car, and a door adapted to pass entirely through said panel, and to open into said panel from either side of the car, so as to open and close either doorway.

3. A street-car having at its end a double-walled panel or pocket movable transversely from side to side of the car to provide a doorway at either side of the longitudinal center of the car, and a door adapted to pass entirely through said panel and to open into
 110 said panel from either side of the car, so as to open and close either doorway, said door having a handle attached to it in such manner as to be movable from its operative position to permit the passage of the door
 115 through the panel.

4. A street-car having at its end a panel movable transversely from side to side of the car to provide a doorway at either side of the longitudinal center of the car, a seat carried by and movable with said panel, and a door adapted to open from either side of the car, so as to open and close either of said doorways.

In testimony whereof I have affixed my signature in presence of two witnesses.

EDDY R. WHITNEY.

Witnesses:

R. M. PIERSON,
 C. F. BROWN.