

No. 734,583.

PATENTED JULY 28, 1903.

L. C. MAXSON & C. M. DENISON.

CINDER GUARD FOR CARS.

APPLICATION FILED SEPT. 17, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

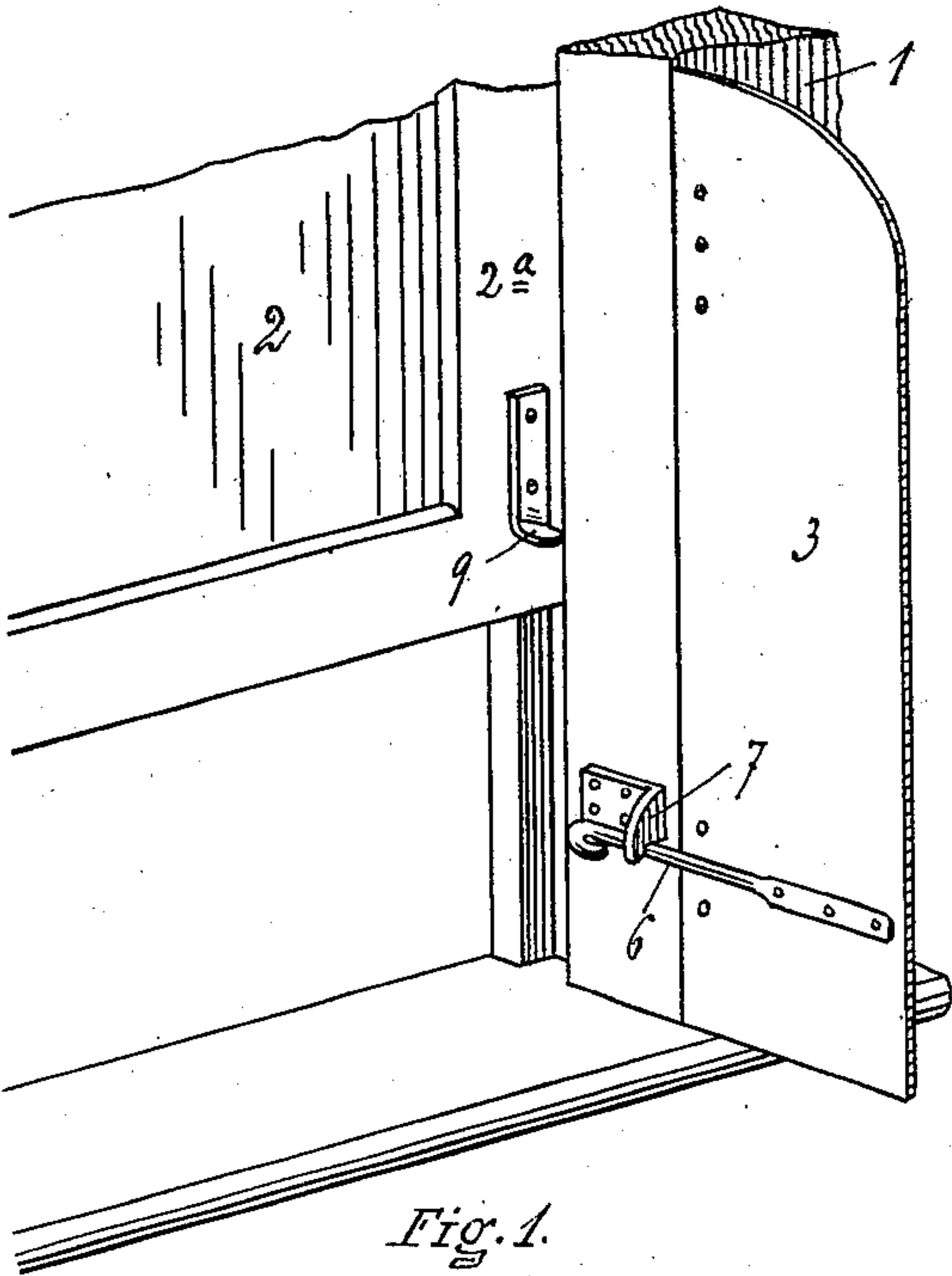


Fig. 1.

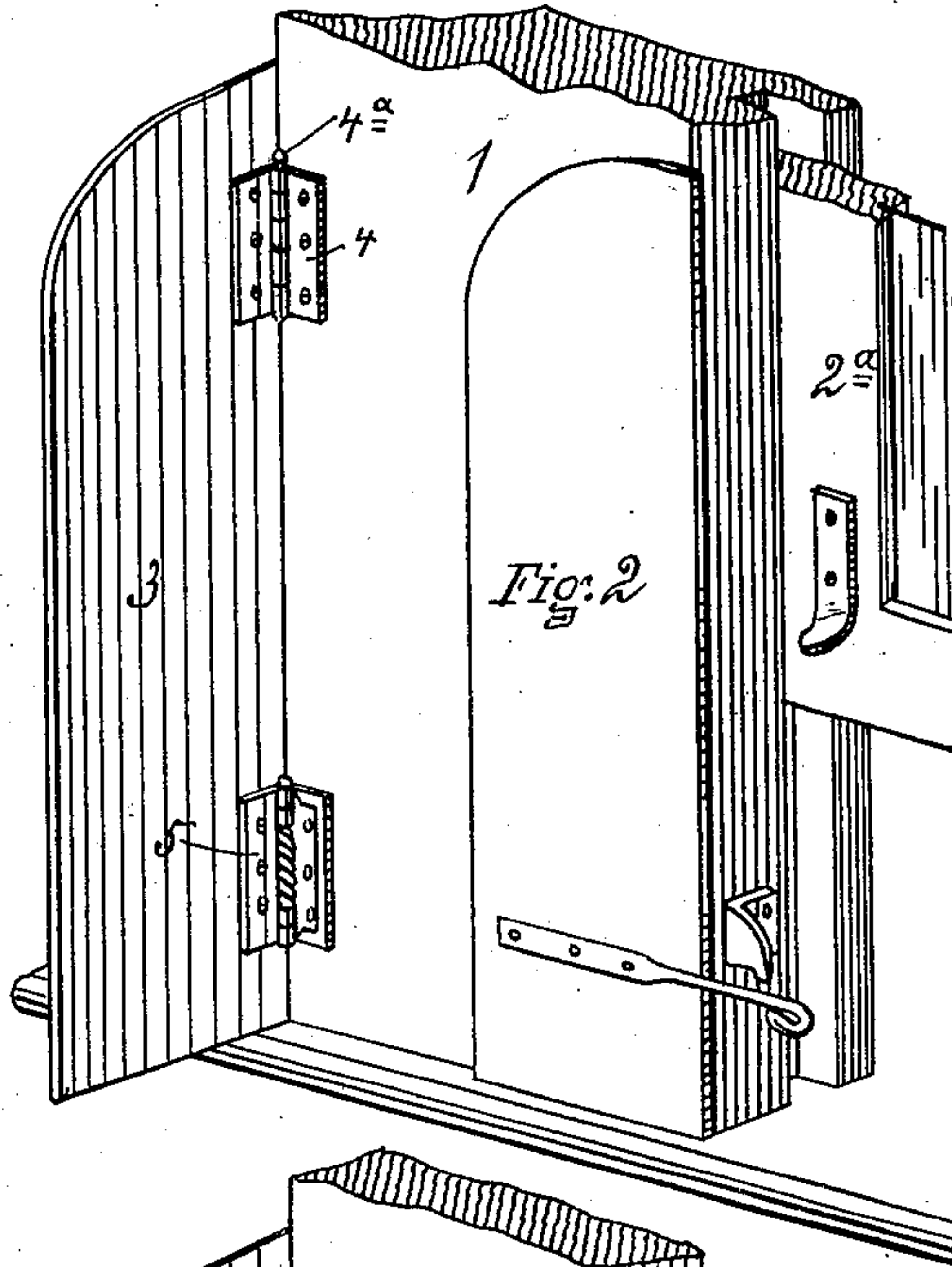


Fig. 2.

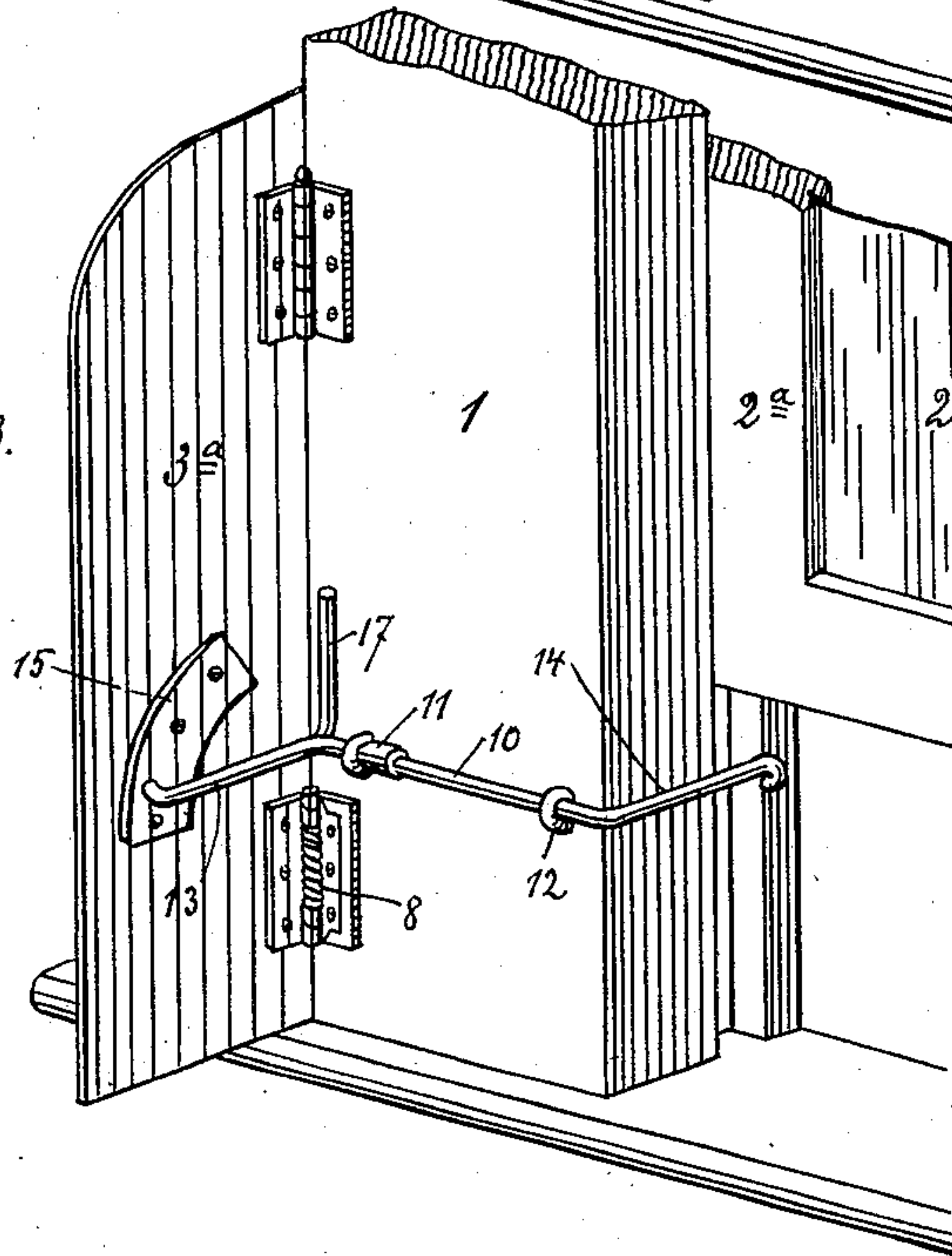


Fig. 3.

Fig. 4.

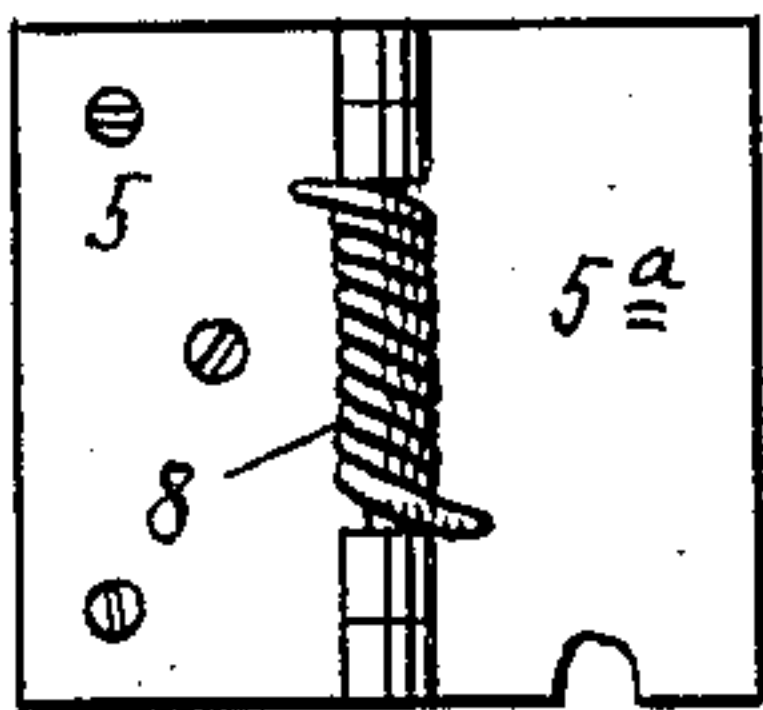
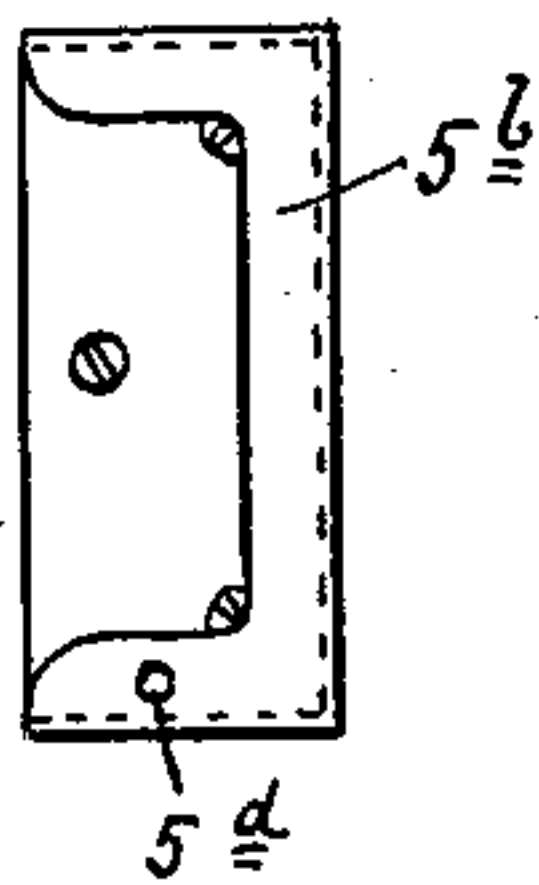


Fig. 5.



WITNESSES
Rich. A. George
S. A. Brown.

INVENTORS
LYNN C. MAXSON
CHARLES M. DENISON
BY Milton C. Robinson
ATTORNEY.

No. 734,583.

PATENTED JULY 28, 1903.

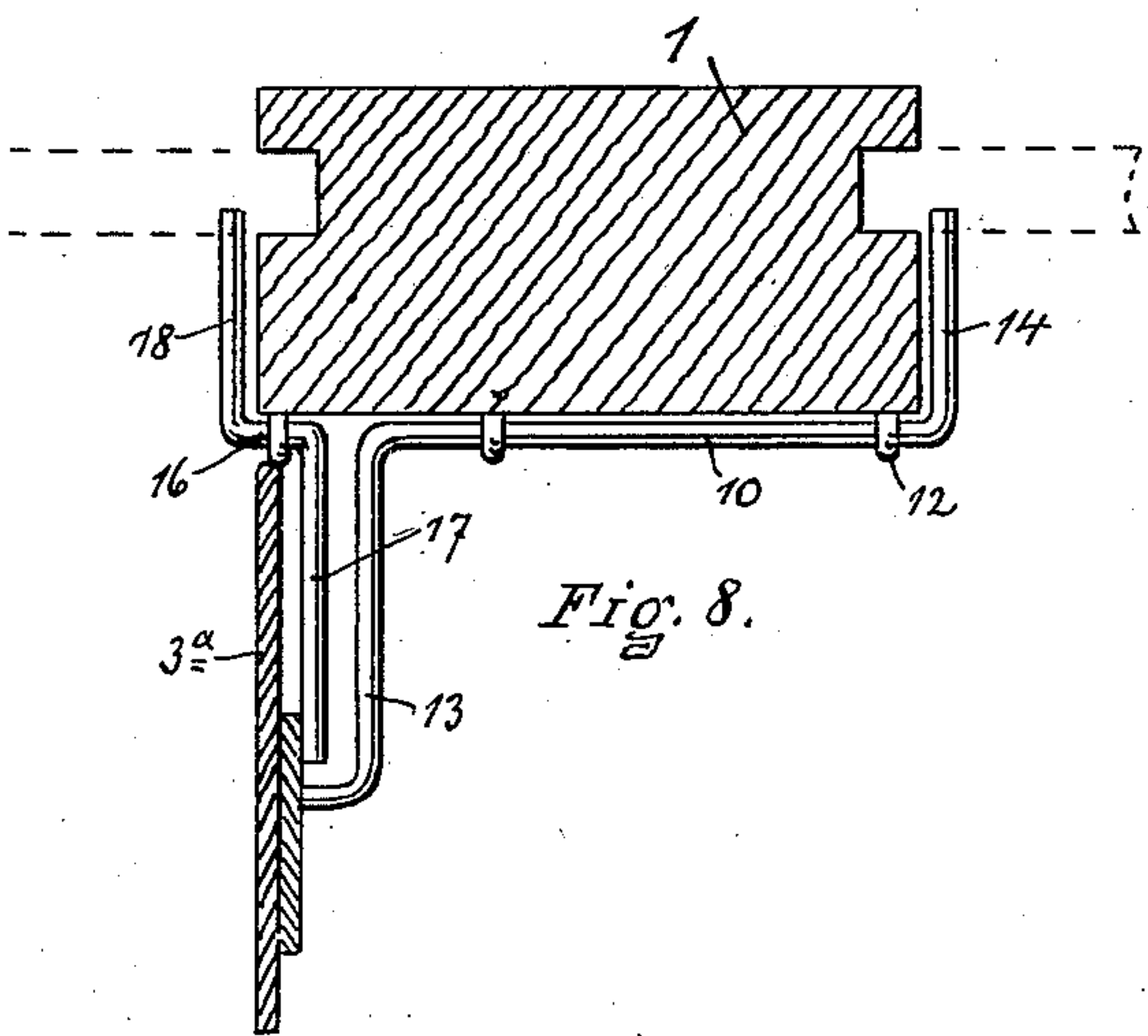
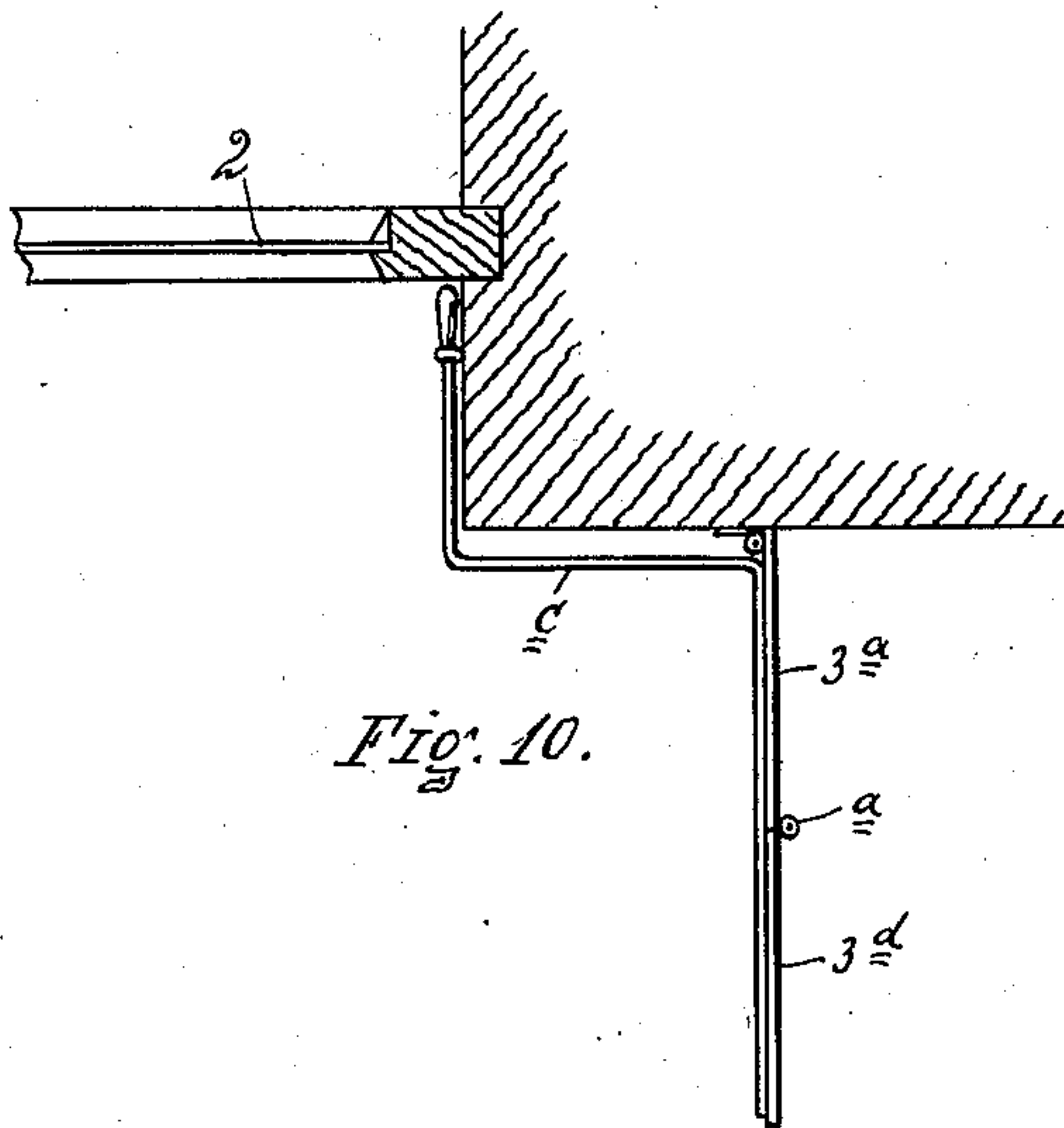
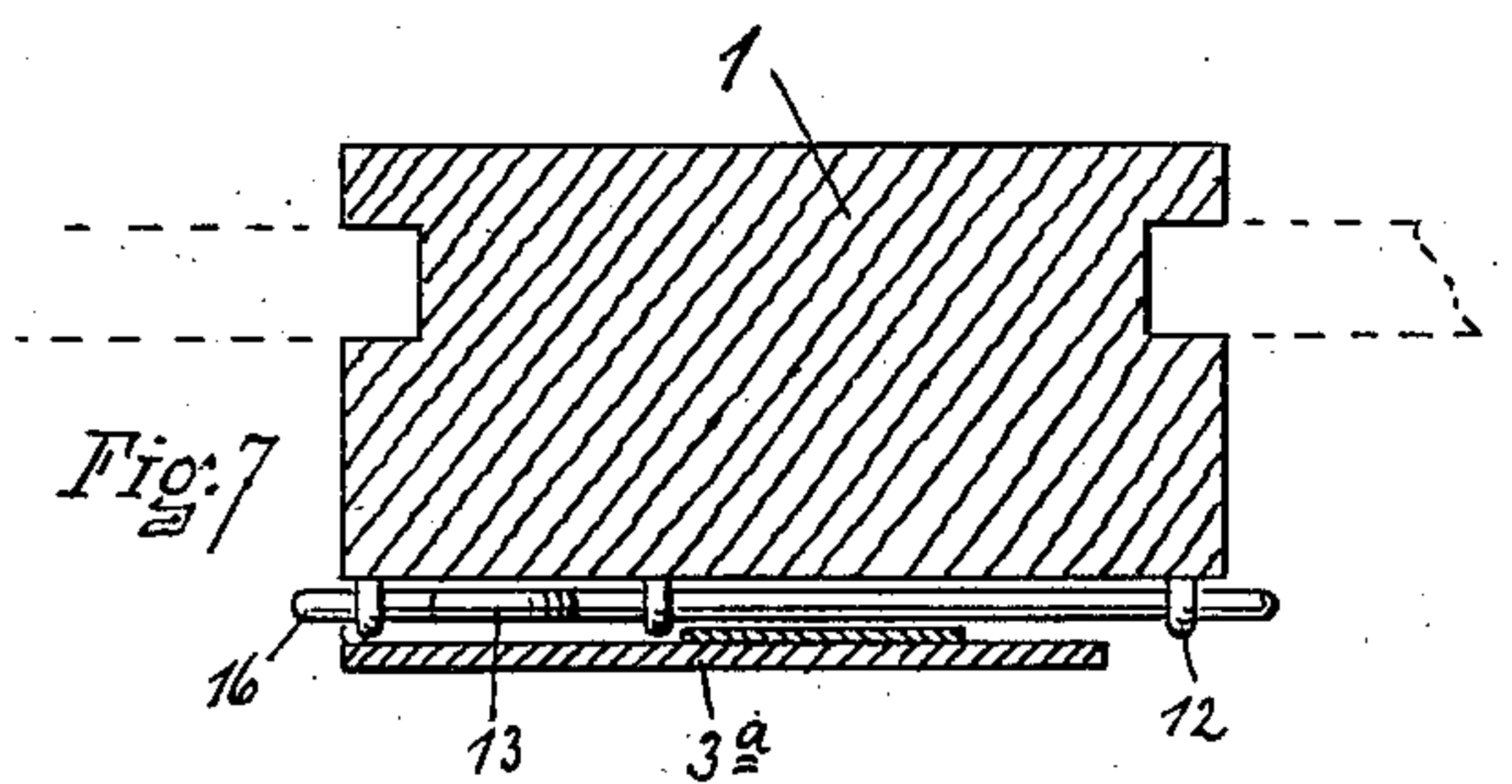
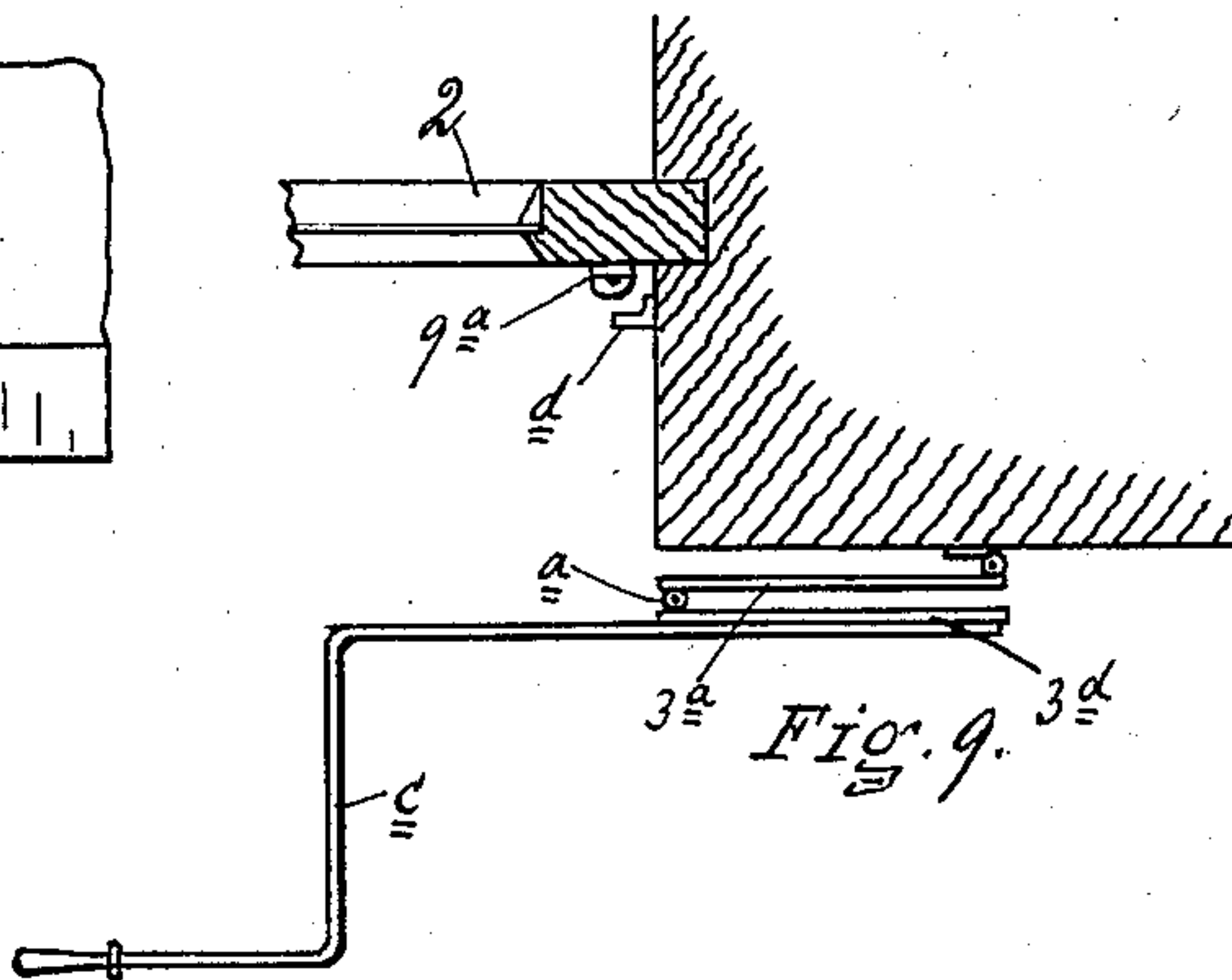
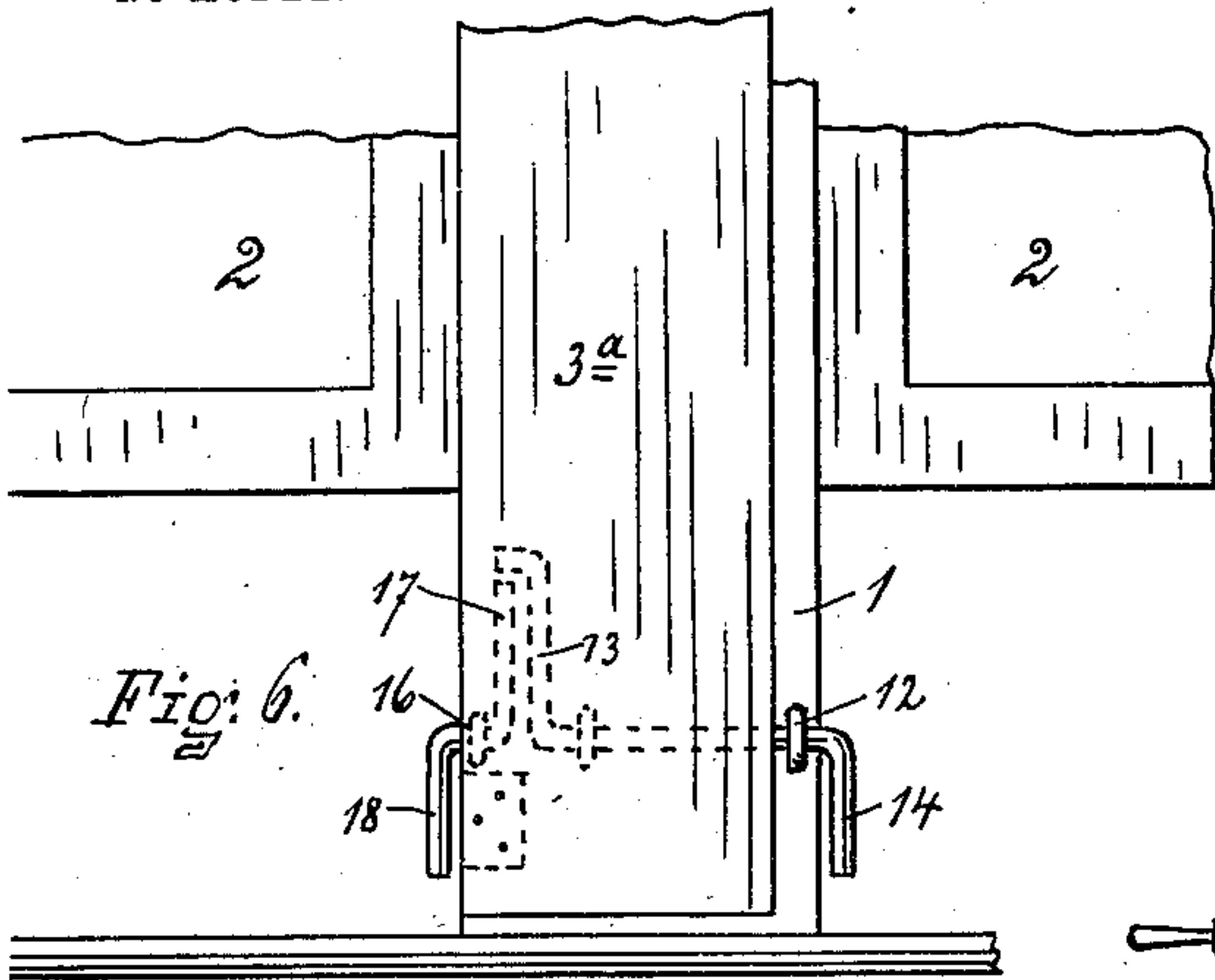
L. C. MAXSON & C. M. DENISON.

CINDER GUARD FOR CARS.

APPLICATION FILED SEPT. 17, 1902.

NO MODEL.

2 SHEETS—SHEET 2.



WITNESSES
Rich. A. George
S. A. Brown.

INVENTORS
LYNN C. MAXSON
CHARLES M. DENISON
BY Milton C. Robinson
ATTORNEY.

UNITED STATES PATENT OFFICE.

LYNN C. MAXSON, OF WEST EDMESTON, AND CHARLES M. DENISON, OF
MIDDLETOWN, NEW YORK.

CINDER-GUARD FOR CARS.

SPECIFICATION forming part of Letters Patent No. 734,583, dated July 28, 1903.

Application filed September 17, 1902. Serial No. 123,687. (No model.)

To all whom it may concern:

Be it known that we, LYNN C. MAXSON, of West Edmeston, in the county of Otsego, and CHARLES M. DENISON, of Middletown, in the
5 county of Orange, State of New York, have invented certain new and useful Improvements in Cinder-Guards for Cars; and we do hereby declare that the following is a full, clear, and exact description of the invention,
10 which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form part of
15 this specification.

The object of our invention is to provide a folding cinder-guard attached to cars which is simple and cheaply constructed and easily operated and preferably automatically folded.

20 In the drawings, Figure 1 shows a perspective view of our cinder-guard mounted on a car in extended position and shown in connection with a portion of a car-window. Fig. 2 shows a perspective view, in the opposite di-
25 rection, of a pair of cinder-guards mounted at the windows of a car, one of the guards being extended and one folded. Fig. 3 shows a perspective view of a modified form of construction. The modification relates more particularly to the mechanism for operating and
30 securing the guard in extended position. Fig. 4 shows a removable hinge employed in mounting the guard. Fig. 5 shows a socket for receiving the same. Fig. 6 shows in side
35 elevation details of a modified form of construction. Figs. 7 and 8 show in plan sectional view the construction shown in Fig. 6, with the cinder-guard in folded and extended positions, respectively. Figs. 9 and 10
40 show in plan sectional view another modified form of construction in closed and extended positions, respectively.

Referring to the reference characters in a more particular description, 1 indicates the
45 side of a car adjacent to a window, and more particularly, as shown Fig. 2, the section of

the side of a car between two adjacent windows.

2 indicates the windows, which are made to slide in vertical grooves in the car or casings. 50

Our cinder-guard 3 is mounted on the side of the car adjacent to the window-opening by means of hinges 4 5.

In order to make the guard readily removable, the pintle 4^a of the upper hinge may be
55 withdrawn, while one part 5^a of the lower hinge is adapted to be received in a socket-piece 5^b, secured on the side of the car. The part 5^a of the hinge 5 is provided with a notch which is adapted to engage with a pin
60 5^d when the part is in the socket 5^b and prevent its working out. The cinder-guard is provided with a projecting handle 6, which is adapted when the guard is in extended
65 position to engage with the catch 7, secured on the side of the window-casing and which serves to secure the guard in open or extended position. In the lower hinge 5 there is
70 provided a spring 8, which is tensioned and operates to fold or close the guard when it is not secured in open or extended position. On the window-sash 2^a there is provided the
75 projecting piece 9, adapted when the window is lowered to engage with the end of the handle 6 and cast it off or disengage it from the catch 7. When so disengaged, the spring 8
80 operates to fold or close the guard from the position in which it is shown in Fig. 1 and on the left of Fig. 2 to the position in which it is shown on the right of Fig. 2.

An occupant of the car being desirous of using the guard after raising the window 2 reaches out and takes hold of the handle 6, drawing it around from the position in which
85 it is shown in Fig. 2 until it is engaged with the catch 7, as shown in Fig. 1, where the guard is secured in extended and operative position. Whenever the window is lowered, (the guard then being of no particular service,) the casting-off projection 9 engages with
90 the handle 6, releasing the guard from the catch and allowing it to automatically fold.

Similar guards will preferably be provided on each side of the car-window, although only one will usually be required for use at a time, depending on the direction in which the car is moving. The vertical length of the guard will preferably be equal to or somewhat greater than the distance that the sash can be raised in opening the window.

In peculiar situations, and particularly where the base or portion of the car between two adjacent windows is too narrow to well provide for a pair of guards in connection with the adjacent sides of each window, we have devised other means for meeting the situation. One of these modified forms of construction is shown in Figs. 3, 6, 7, and 8. The guard 3^a is similar to those heretofore described, except that it is not provided with the handle 6. For operating or extending the guard from one of the window positions we provide a rock-shaft 10, mounted in bearings 11 12 on the side of the car, with an arm 13, adapted to engage the cinder-guard and handle 14, by means of which it may be operated. When the car-window is open, the party may reach out and take hold of the handle 14, which will then be in a depending position, and turn it from a depending to a substantially horizontal position, as shown in Fig. 3. In making this movement the arm 13 will engage with the cinder-guard 3^a and force it from its closed to its open position and secure it in the open position. The guard-arm 13 portion of this mechanism will preferably engage with a wedge-shaped projection 15 on the side of the guard 3^a in order to bring the guard into a more nearly right-angle position with the side of the car. When the window at the handle 14 is lowered, the arrangement is such that it will engage with the end of the handle 14, throwing it down toward its depending position and releasing the guard, which will be automatically folded by the operation of the spring 8, as heretofore pointed out. For operating the guard 3^a from the adjacent window we provide a short shaft 16 with arms 17 and handle 18, respectively, similar to 13 and 14, before described, the former adapted to engage on the rear side of the guard and on the wedge projection 15 and the latter adapted to be used to operate the device and engage with the window-sash, as before described. By means of these two rock-shaft-lever connections the single guard between a pair of windows can be controlled or operated from either of its adjacent window positions. As shown in Figs. 3, 6, 7, and 8, the cinder-guard is mounted on the edge of the casing of one of the windows. It is obvious that the guard could be mounted in a middle position between two windows and one of the shafts be correspondingly shortened and the other correspondingly lengthened. To meet a similar situation to

that last described or other conditions, we have also devised another method of construction. (Shown as to some of its details in Figs. 9 and 10.) In this construction the cinder-guard is formed of two folding sections 3^a and 3^d, extending longitudinally or vertically of the guard and hinged or jointed together at *a*. The section 3^a is hinged to the side of the car at *b*, and the hinges *a* and *b* are provided with springs similar to 8, heretofore described, which tend to fold the section 3^a onto the side of the car, as shown in Fig. 9, and fold the section 3^d over the section 3^a, as also shown in Fig. 9. For operating and securing the guard in extended position there is provided an angular handle *c*, preferably of wire, secured to the part 3^d of the guard and projecting when the guard is in folded position in front of the window-opening, as shown in Fig. 9. When the window is opened, the passenger may reach out and by means of the handle *c*, partially turning and partially pushing, open out the guard and secure it in extended position by engaging the handle with the catch *d* on the window-casing. The window 2 is provided with a projection 9^a, similar to 9, before described, adapted to engage with the end of handle *c* and disengage it from the catch *d* when the window is lowered. When the handle *c* is disengaged from the catch *d*, the guard will be automatically folded on itself and against the side of the car by reason of the operation of the springs in the hinges, as before described.

It is evident that other modifications and changes from those herein described may be made without departing from the spirit of our invention.

What we claim as new, and desire to secure by Letters Patent, is—

1. A folding cinder-guard for cars hinged to the casing at the side of the window-opening, a spring for operating said guard to folded position against the side of the car, an arm carried by the guard for operating the same, located in front of the window-opening when the guard is folded, in convenient position for operation and adapted to be tripped by the window when lowered to allow the guard to automatically fold, substantially as set forth.

2. A folding cinder-guard for cars hinged to the casing of the car-window adjacent to the window-opening, a spring for operating the guard to folded position against the side of the car, an arm projecting from the guard in front of the window-opening when the guard is folded in convenient position for operating the guard, a catch on the window-casing for engaging said arm and securing the guard in open position and a trip on the window-sash for releasing the said arm from the catch, substantially as set forth.

3. A folding guard for car-windows hinged
to the side of the car adjacent to the window-
opening, a spring for operating the guard to
folded position against the side of the car, a
5 handle for operating the guard to open posi-
tion occupying a position in front of the win-
dow-opening when the guard is closed in con-
venient position to be operated and adapted
to be tripped by the sash of the window when
10 lowered to release the guard and allow it to
fold, substantially as set forth.

In witness whereof we have affixed our sig-
natures, in presence of two witnesses, this
11th day of September, 1902.

LYNN C. MAXSON.

CHAS. M. DENISON.

Witnesses to signature of L. C. Maxson:

J. BENJ. BRADY,

S. A. BROWN.

Witnesses to signature of C. M. Denison:

W. L. BARBOUR,

R. E. QUICK.