

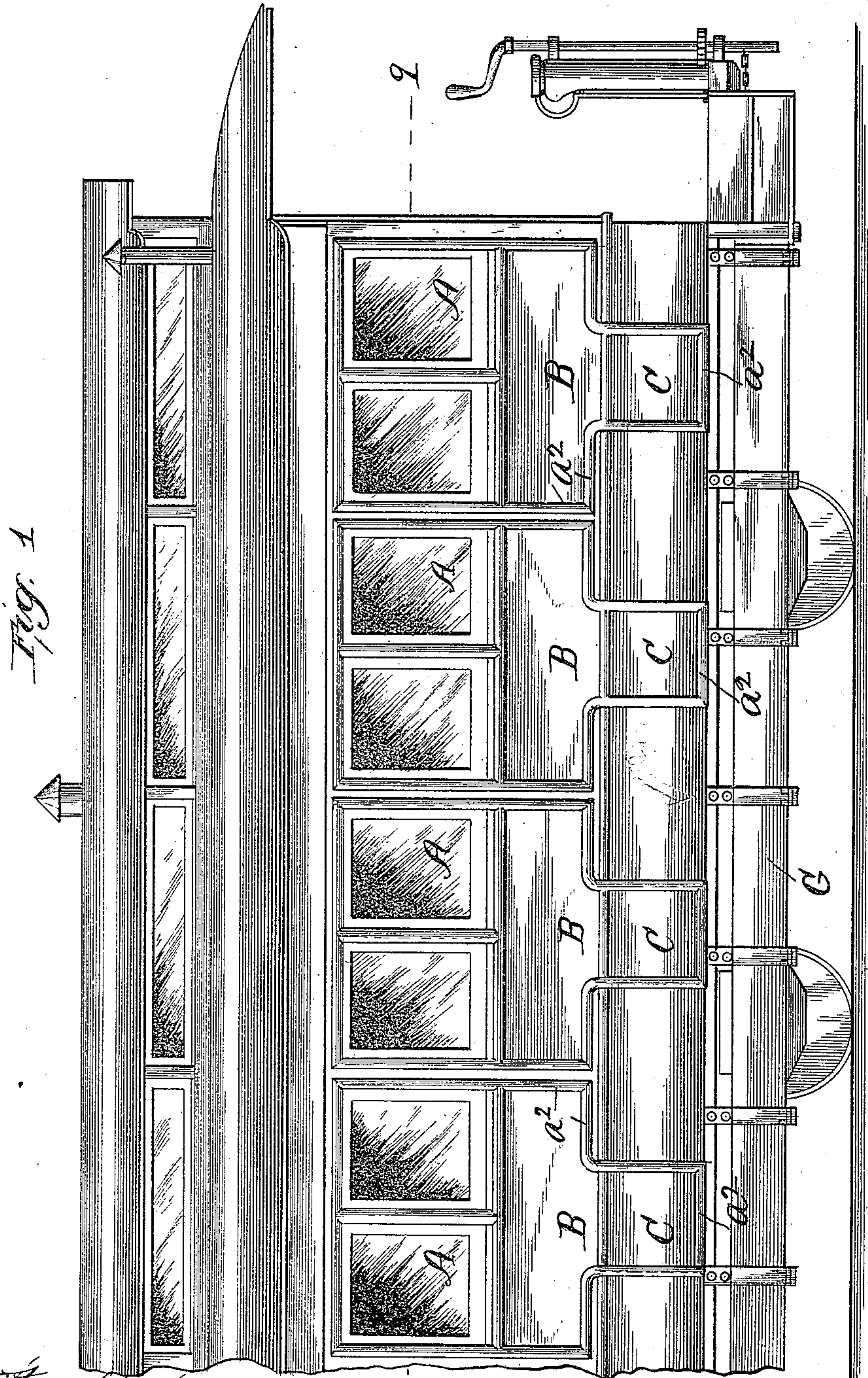
(No Model.)

3 Sheets—Sheet 1.

J. G. SCHNEIDER.  
STREET CAR.

No. 442,830.

Patented Dec. 16. 1890.



Witnesses:  
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L. M. Freeman.

Inventor:  
J. G. Schneider  
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Attys



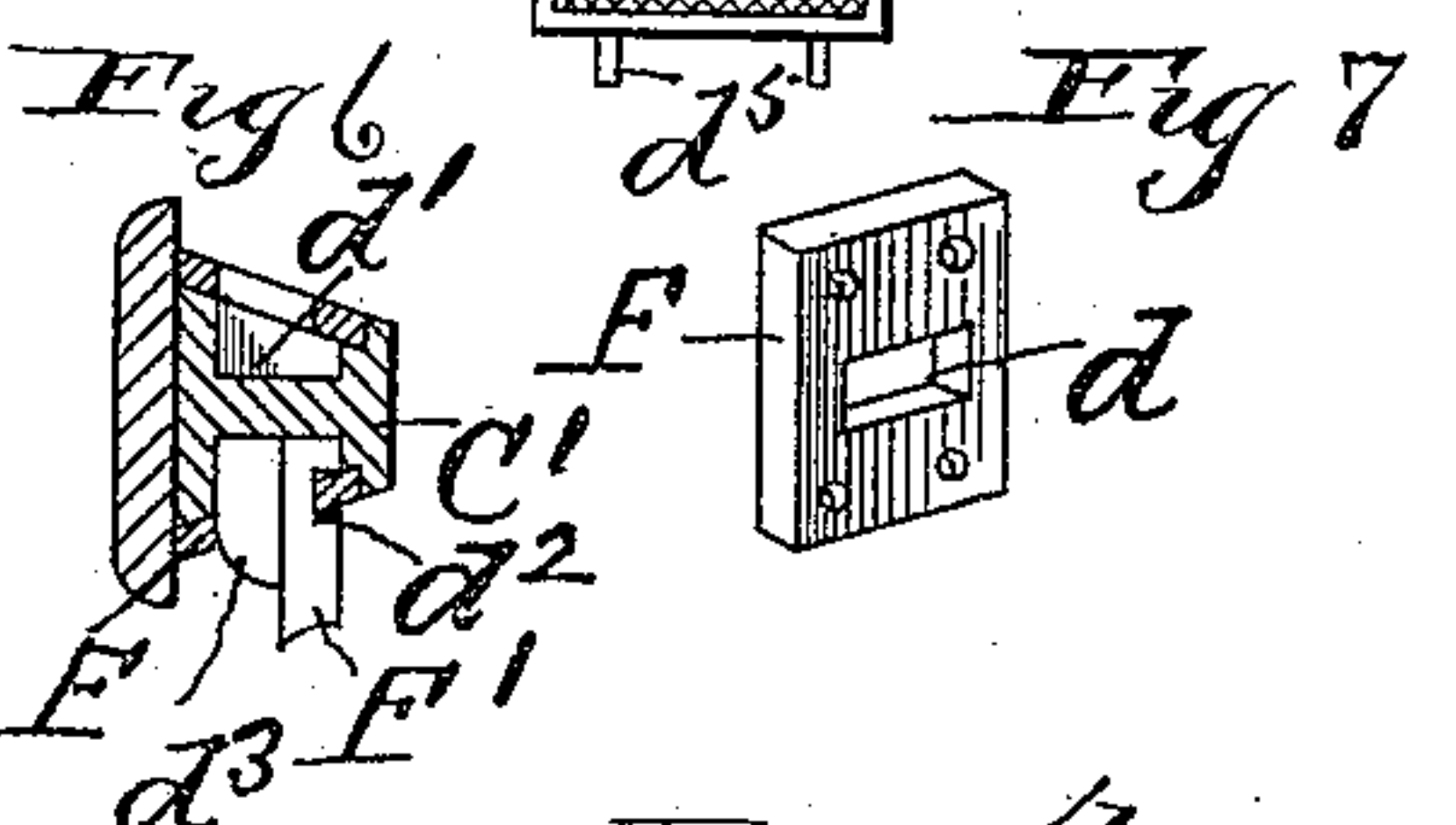
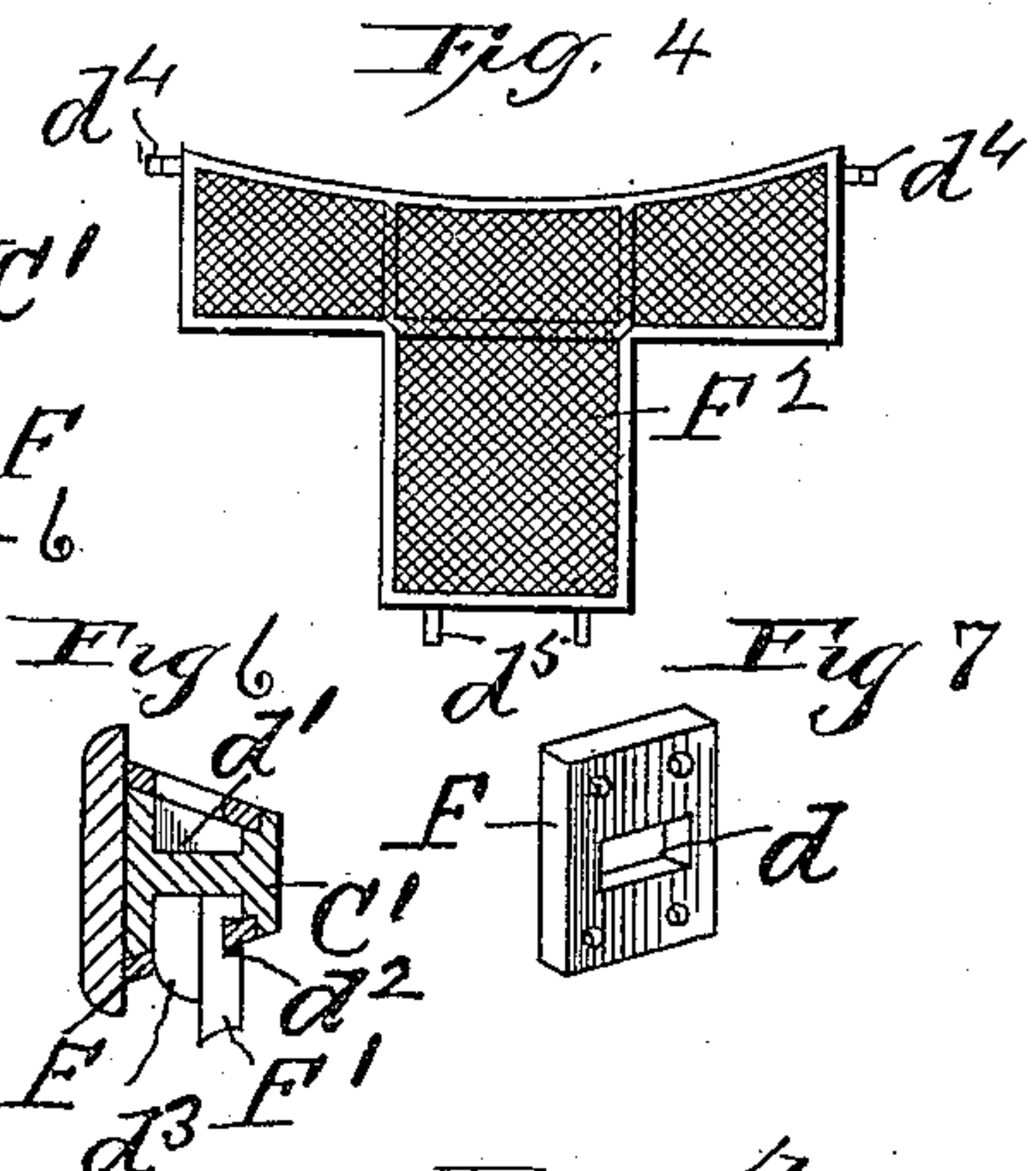
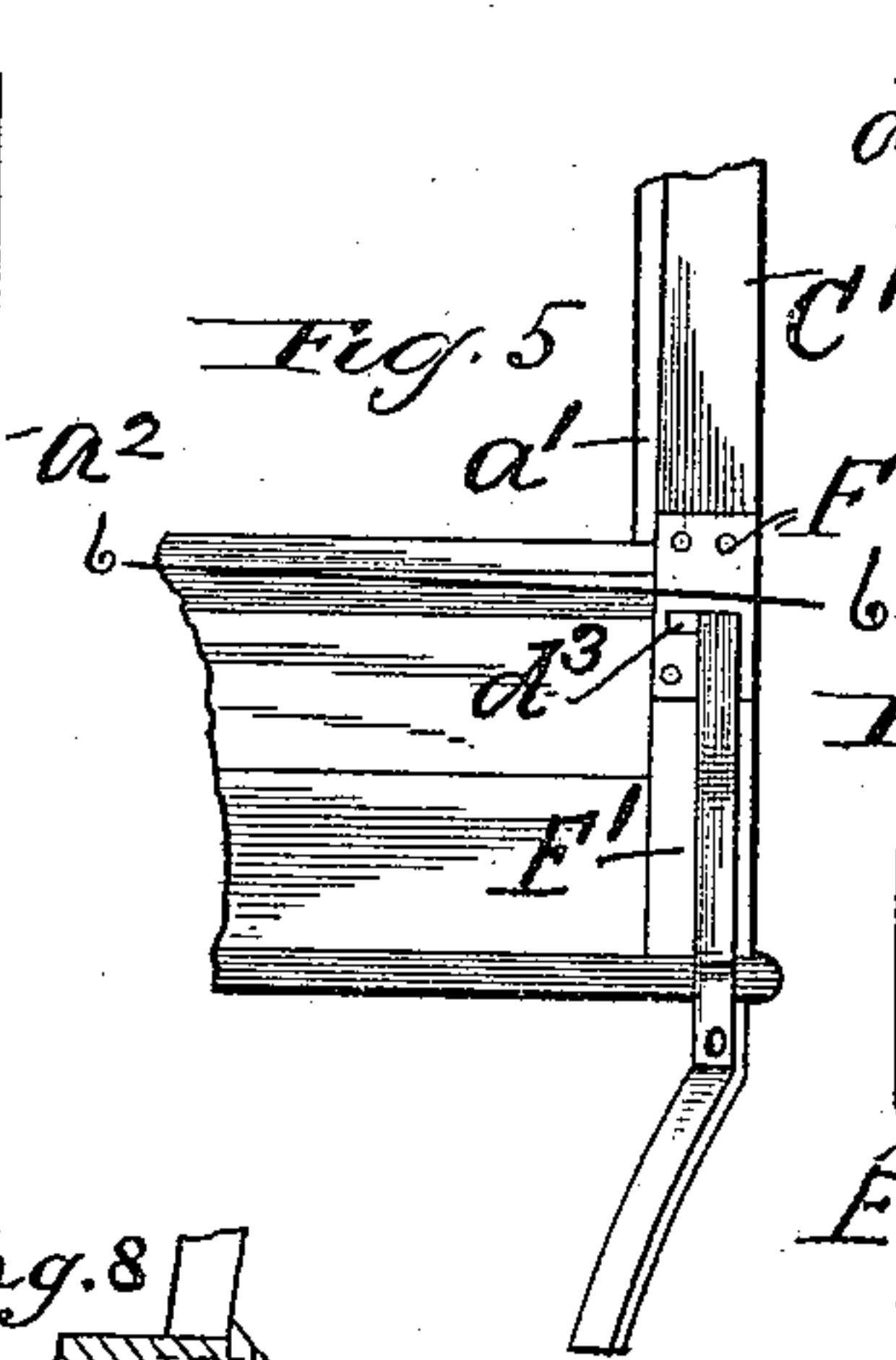
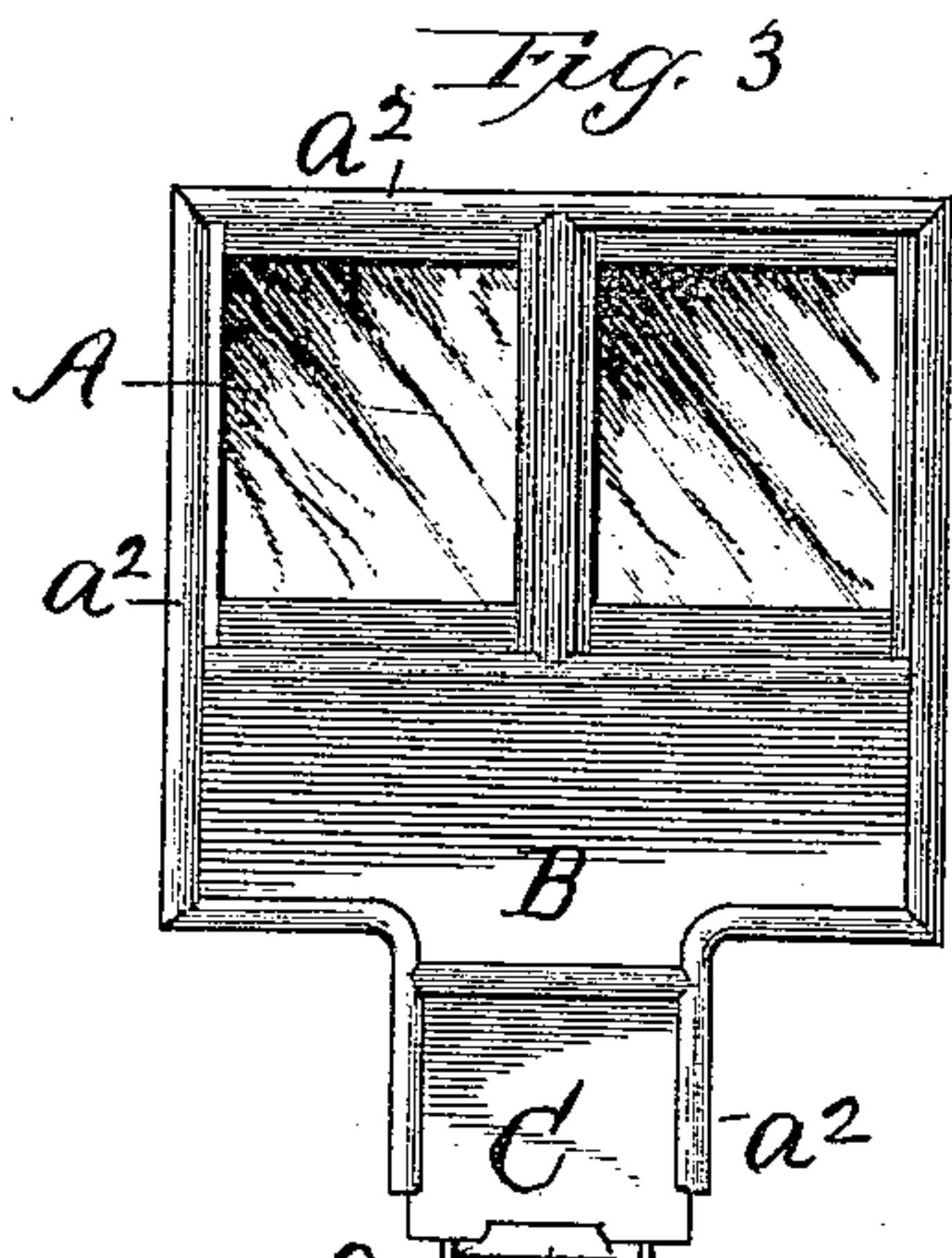
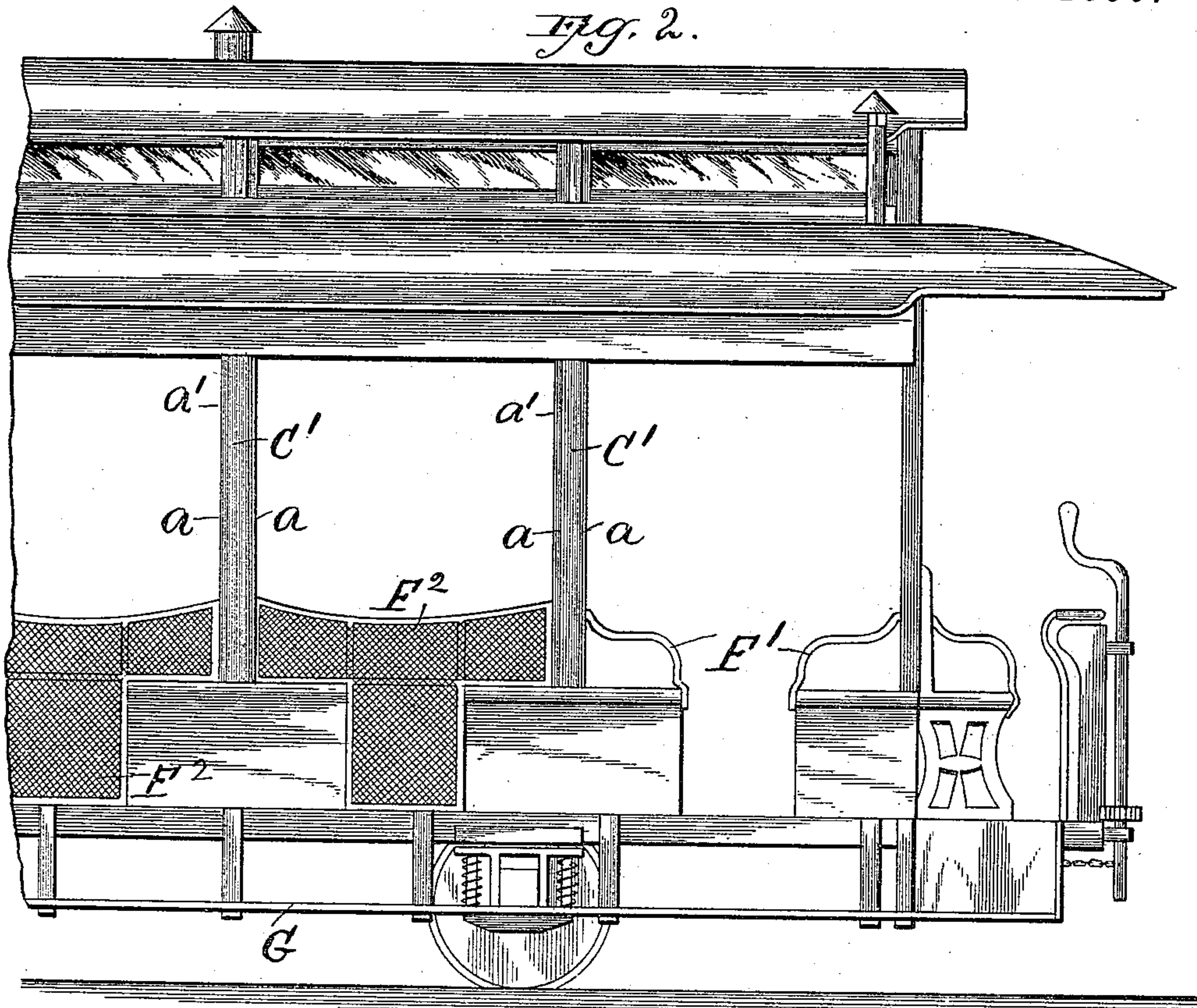
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(No Model.)

3 Sheets—Sheet 3.

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Fig. 9.

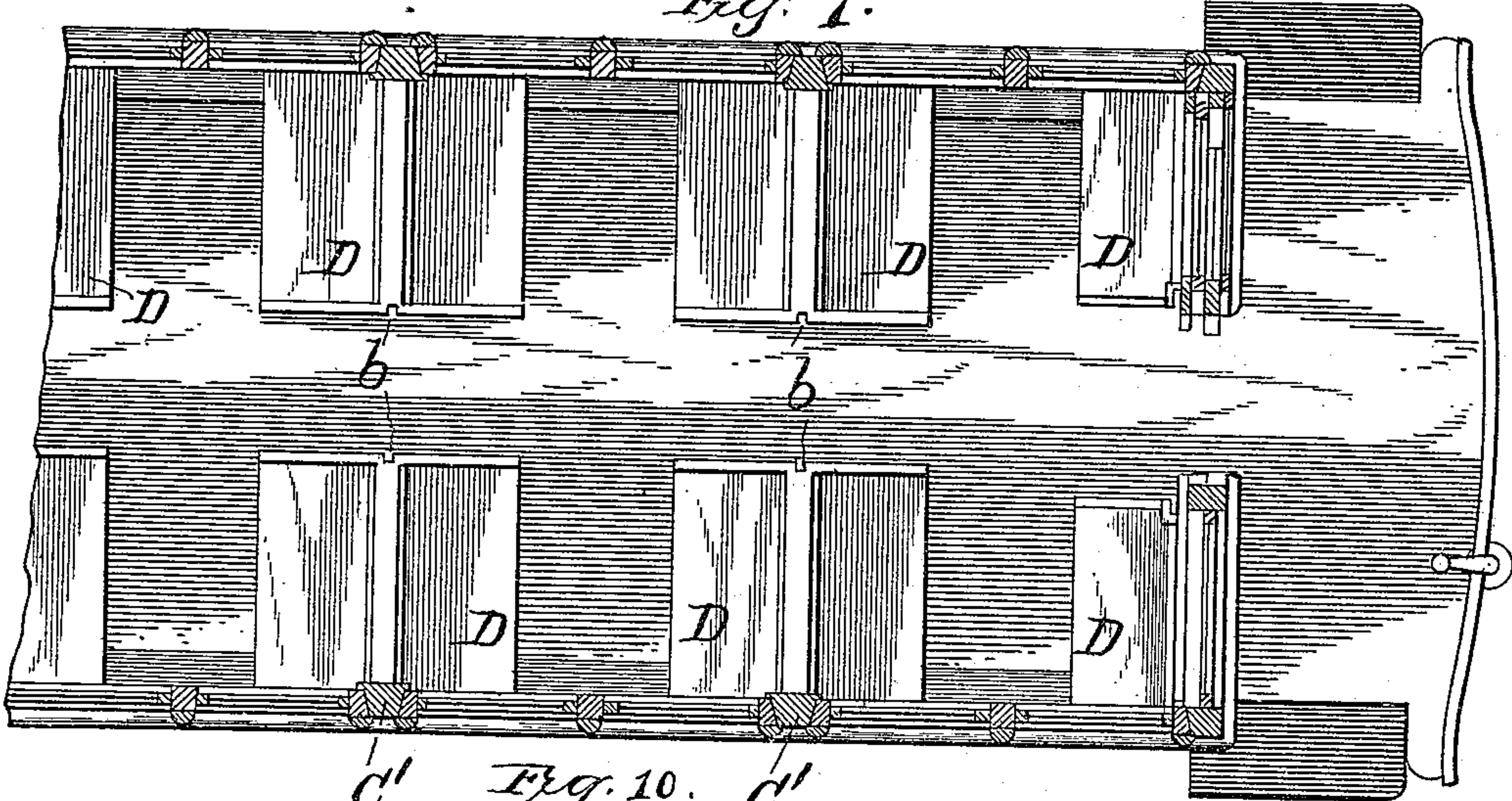


Fig. 10.

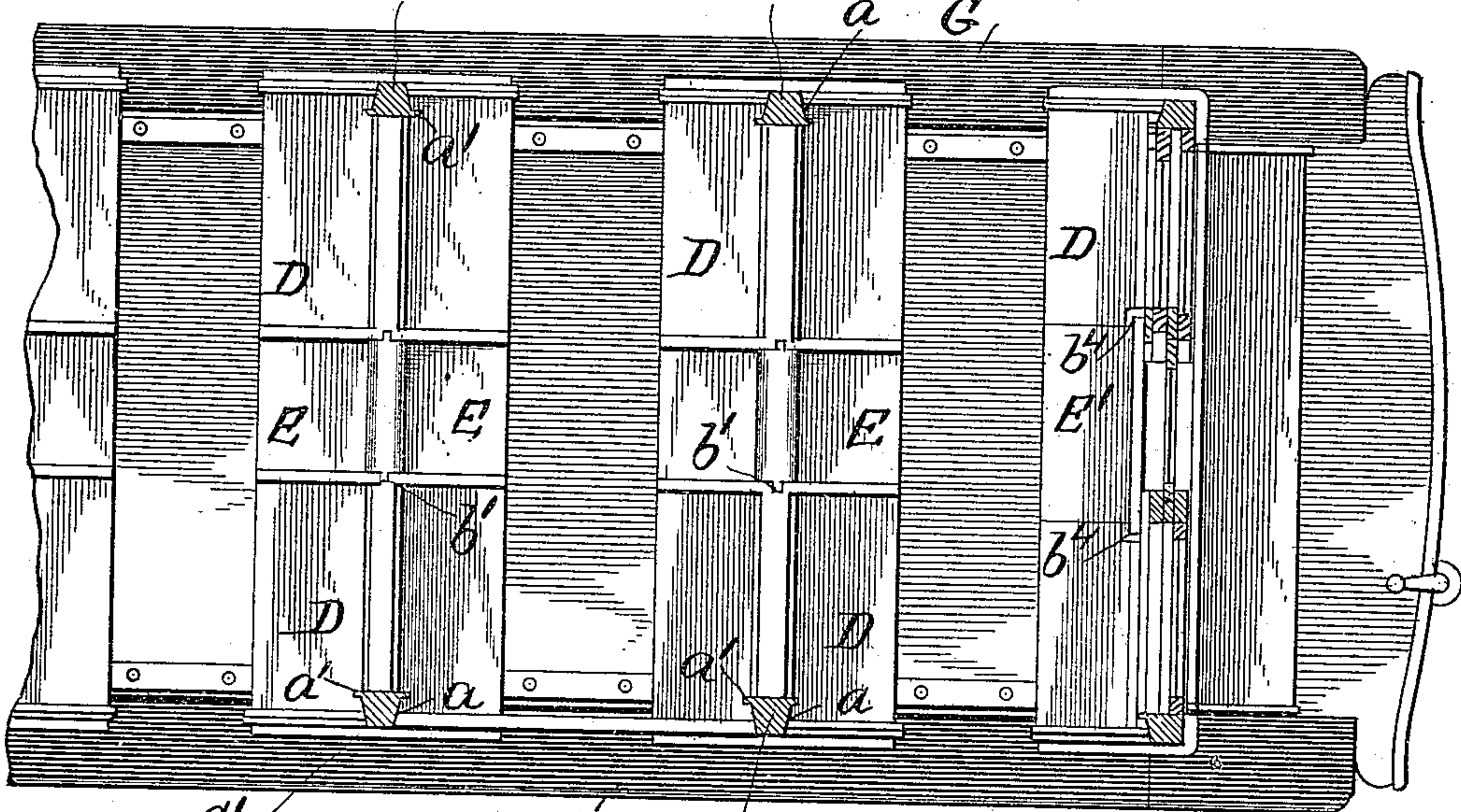


Fig. 11.

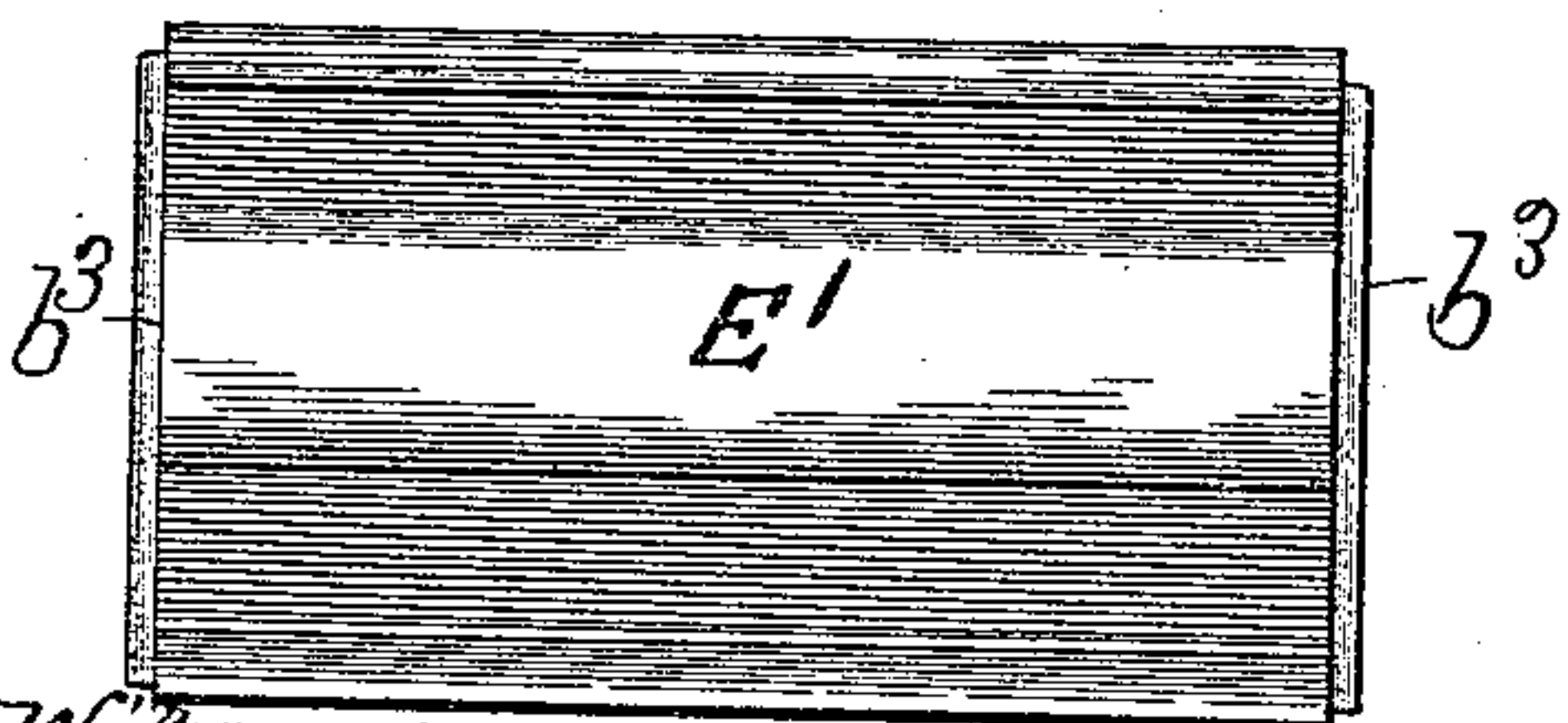


Fig. 13.

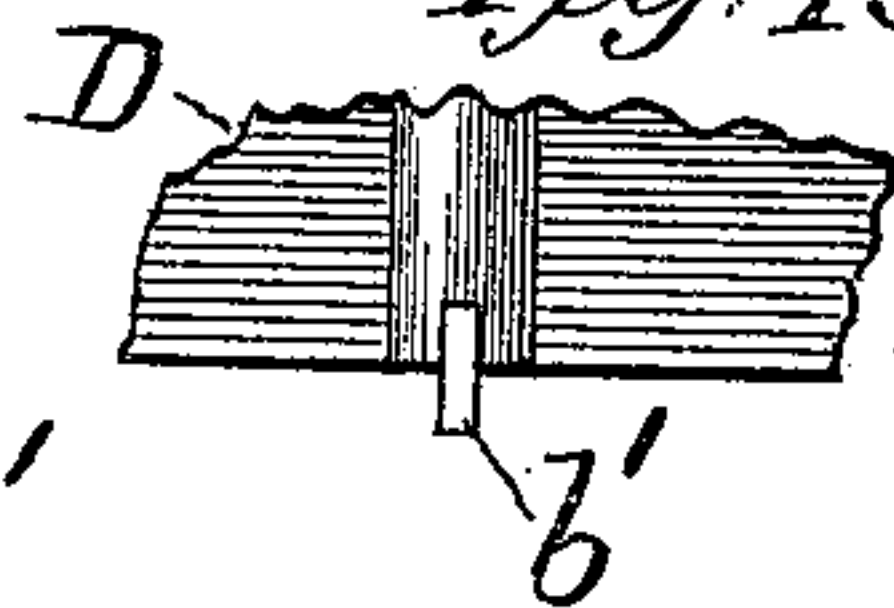
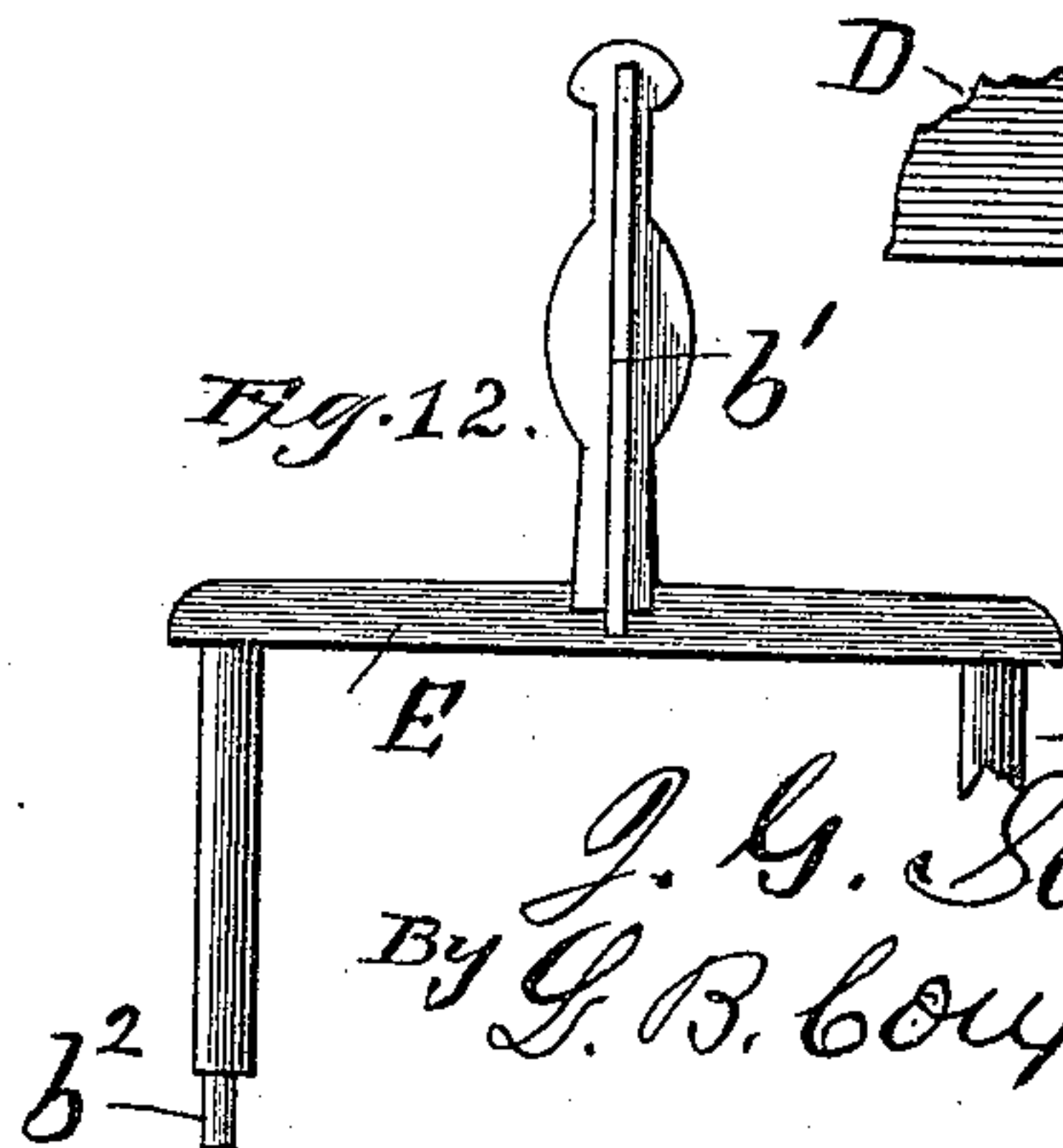


Fig. 12.



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# UNITED STATES PATENT OFFICE.

JOHN G. SCHNEIDER, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO  
FRANK RIEDLE, OF SAME PLACE.

## STREET-CAR.

SPECIFICATION forming part of Letters Patent No. 442,830, dated December 16, 1890.

Application filed August 11, 1890. Serial No. 361,736. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN G. SCHNEIDER, 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 Passenger or Street Car, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in passenger and street cars and vehicles of a similar character, and has for its object the construction of a combination car which may be readily converted into a "summer" or "winter" car, as will be hereinafter set forth.

In the drawings, Figure 1 is a broken-away side elevation of a closed or winter car embodying my improved features; Fig. 2, a similar view showing the structure converted into an open or summer car; Fig. 3, a detached elevation of the closed or winter panel; Fig. 4, an open or summer panel of wire-cloth; Fig. 5, a broken-away view looking toward one of the seats; Fig. 6, a horizontal section in plane 6, Fig. 5; Fig. 7, a detached detail. Fig. 8 shows an end view of the folding step for the open car. Fig. 9 is a longitudinal horizontal section in plane 9, Fig. 1, showing the seats arranged for the winter car. Fig. 10 is a similar view showing the arrangement of seats when converted into a summer car. Fig. 11 is an elevation of the removable central part of one of the end seats of the summer arrangement; Fig. 12, an end elevation of one of the removable central inside parts of the summer car, and Fig. 13 a broken-away plan of the same.

The sides of the car-body are composed of a number of removable panels extending from the letter-board down to the floor. Each panel consists of the window-sections A, the upper panel B, and the lower narrower part C, extending down between the ends of the seat, as shown in Fig. 1, which is the construction for the closed or winter car.

Fig. 3 is a detached view of one of the combination panels.

The vertical framing-posts C' are beveled on opposite sides, as at a, the bevel stopping

just short of the inner edge, so as to provide the projecting edge a' on each side and form a bearing edge or stop for the contacting surface of the panel-frame. The framing edges of the panel and window sections are correspondingly beveled, so as to wedge in between the framing-posts and form a tight joint, and they may then be fastened in any suitable manner to permit of their being readily removed. The molding a<sup>2</sup> of the removable panel-sections projects a little all around and will bear against the exterior framing-surface. The molding a<sup>2</sup> around the bottom part of the panel is broken away in Fig. 3, showing the pegs a<sup>3</sup>, which are adapted to engage with apertures in the floor of the car. The rubber block a<sup>4</sup> is set in the bottom edge of the panel and is adapted to engage with a corresponding recess in the car-floor and form a cushion to prevent any rattling incident to the vibration of the car.

The stationary seats D for the closed car are arranged, as shown in Fig. 9, with an aisle or passage longitudinal through the center, the passengers getting on and off at the respective ends.

By removing the panel and window sections the structure is converted into the open car illustrated in Fig. 2, the seats being arranged as shown in Fig. 10, the aisles running transversely and the passengers getting on and off at the sides of the car.

The longitudinal aisle or passage between the seats in Fig. 9 is closed, and the seating capacity increased in the summer structure by means of the removable seats E inserted between the adjacent ends of the seats D, as shown in Fig. 10. The adjacent ends of the seats D are provided with the vertical groove or gain b, and the respective ends of the removable seats E are provided with the rib or tongue b', (see Figs. 12 and 13,) which is adapted to engage with the grooves b, and thus form a continuous transverse seat. The legs of the removable seat E terminate in the peg end b<sup>2</sup>, (see Fig. 12,) fitting into corresponding apertures in the floor of the car for the purpose of assisting in removably securing said seat in place. The back of the removable central part E' of the end seats, Figs. 10 and 11, is provided at each end with the rib b<sup>3</sup>, which



engages with the corresponding recesses  $b^1$  in the inner ends of the stationary part of the seats, and is thus removably held in position in the summer structure.

5 F represents a plate, (see Figs. 5, 6, and 7,) which is let into the opposite sides of the different framing parts  $C'$  and fastened rigidly. This plate is provided transversely with the slot  $d$ , and the posts with the recess  $d'$ , back  
10 of said plates, as shown in Fig. 6.

The upper end of the hand-rail  $F'$  at the respective ends of the seats is provided with the notch  $d^2$  (see Fig. 6) and inserted in the slot in said plate, the notch engaging with the  
15 edge thereof. A key  $d^3$  is then driven in and the upper end of the hand-rail removably secured in place, the lower end of the hand-rails being removably secured to the edge of the seats in any suitable manner.

20 The T-shaped panel  $F^2$ , Figs. 2 and 4, is composed of wire gauze or cloth and is of a form to fit in between the respective ends of the seats, as shown in Fig. 2, closing the exit-passage on that side of the summer car next  
25 the return-track. When these open panels are to be placed in position, the hand-rails are removed and the pins  $d^4$  on the panels inserted in the slotted plates and temporarily keyed in place. The pins  $d^5$  on the bottom  
30 edge of the wire panel engage with holes in the floor. This open panel admits air and forms an arm-rest on the side on which it is temporarily used.

The step G running along the side of the  
35 car is supported by brackets and adapted to fold up against the side when the structure is converted into a closed car. By this arrangement a less number of cars are required and a large expense saved in storage for cars  
40 that are out of season.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

45 1. In a convertible car, the combined removable panel and window sections extending from the letter-board down to the bottom of the car between the ends of the seats,

whereby said sections, divided vertically by the respective framing-posts, may be entirely removed from the structure or replaced as re-  
50 quired, substantially as and for the purpose set forth.

2. In a car structure of the character described, the combination, with the vertical framing-posts having opposite sides beveled,  
55 as described, of the removable panel and window sections having their framing edges correspondingly beveled and adapted to be removably inserted between the respective posts, substantially as and for the purpose  
60 set forth.

3. The combination, with the removable panel-sections, of the pegs  $a^3$  and the rubber block  $a^4$ , substantially as described.

4. In a convertible car structure, the combination, with the stationary transverse seats,  
65 of the removable seats having ribs which engage with corresponding grooves in the stationary seats, and the pegs projecting from the lower edge of the removable seat and  
70 adapted to engage with corresponding apertures in the floor, substantially as described.

5. In a convertible car structure, the combination, with the stationary seats having vertical grooves in the inner or adjacent  
75 ends, of the removable seats provided on their respective ends with a rib adapted to engage with said grooves in forming a continuous seat, substantially as and for the purpose set  
80 forth.

6. The combination, with the framing-posts, of the plates F, provided with a transverse slot, the hand-rails adapted to be inserted in  
85 said slots, and the key for fastening the same in place, substantially as described.

7. In a convertible car structure, the T-shaped wire-cloth panel adapted for temporary use in closing the exit-passage on one side of the car when the panel-sections proper are removed, substantially as described.

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