

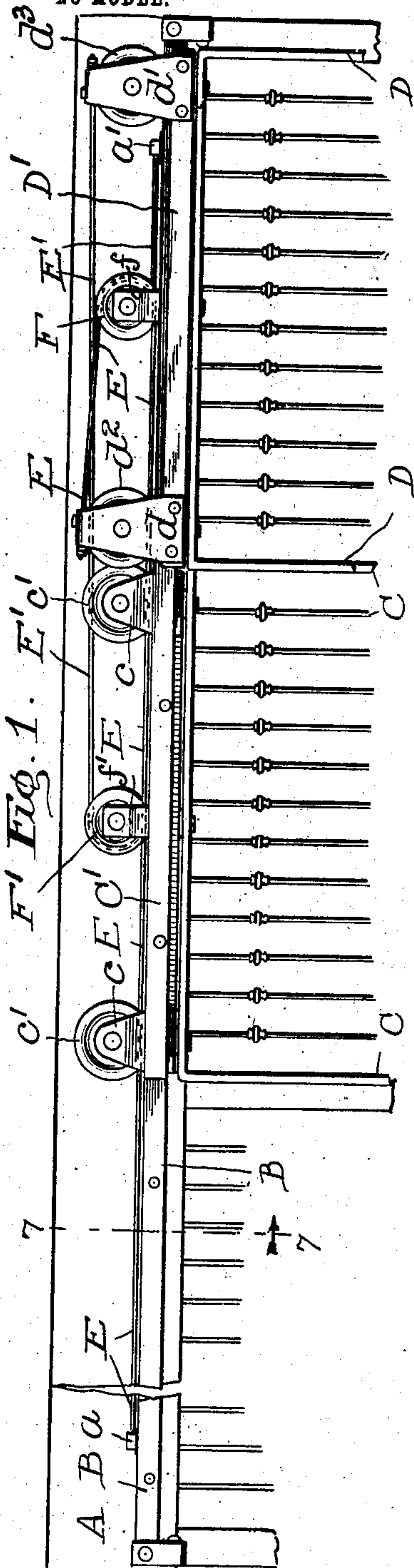
No. 737,308.

PATENTED AUG. 25, 1903.

F. A. WINSLOW.
ELEVATOR DOOR OPERATING MECHANISM.

APPLICATION FILED MAR. 2, 1903.

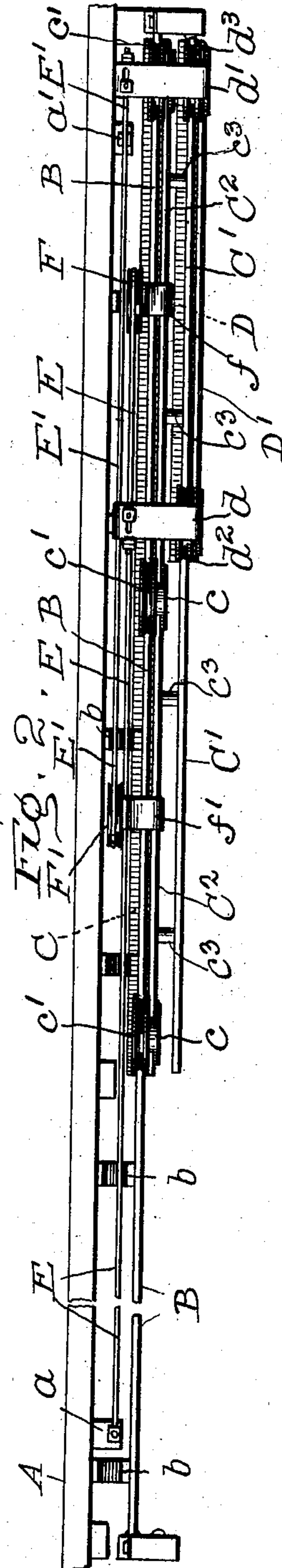
NO MODEL.



Witnesses:

Russell Wiles
Chas. O. Shurway

2 SHEETS—SHEET 1.



Inventor:

Francis A. Winslow

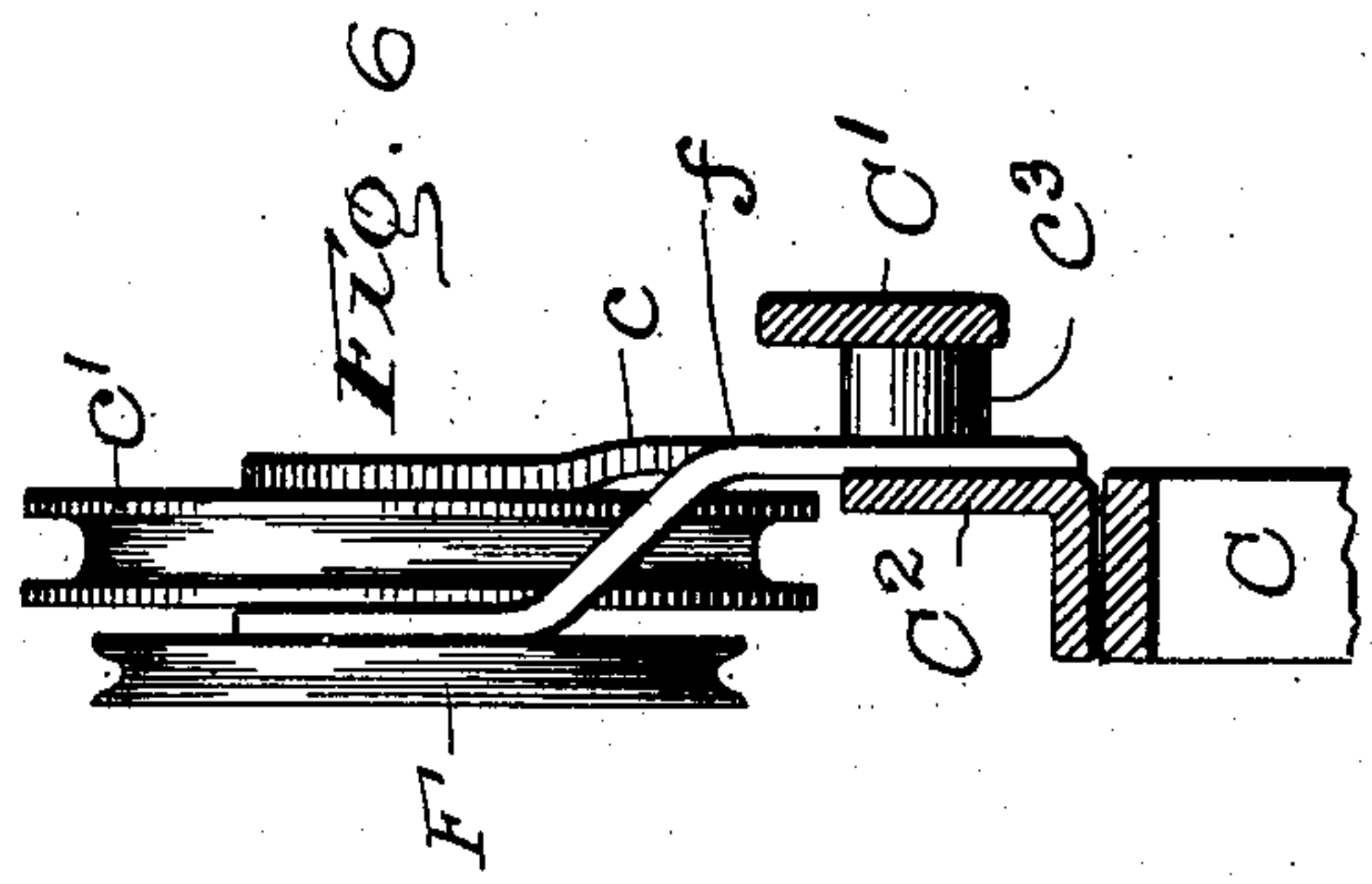
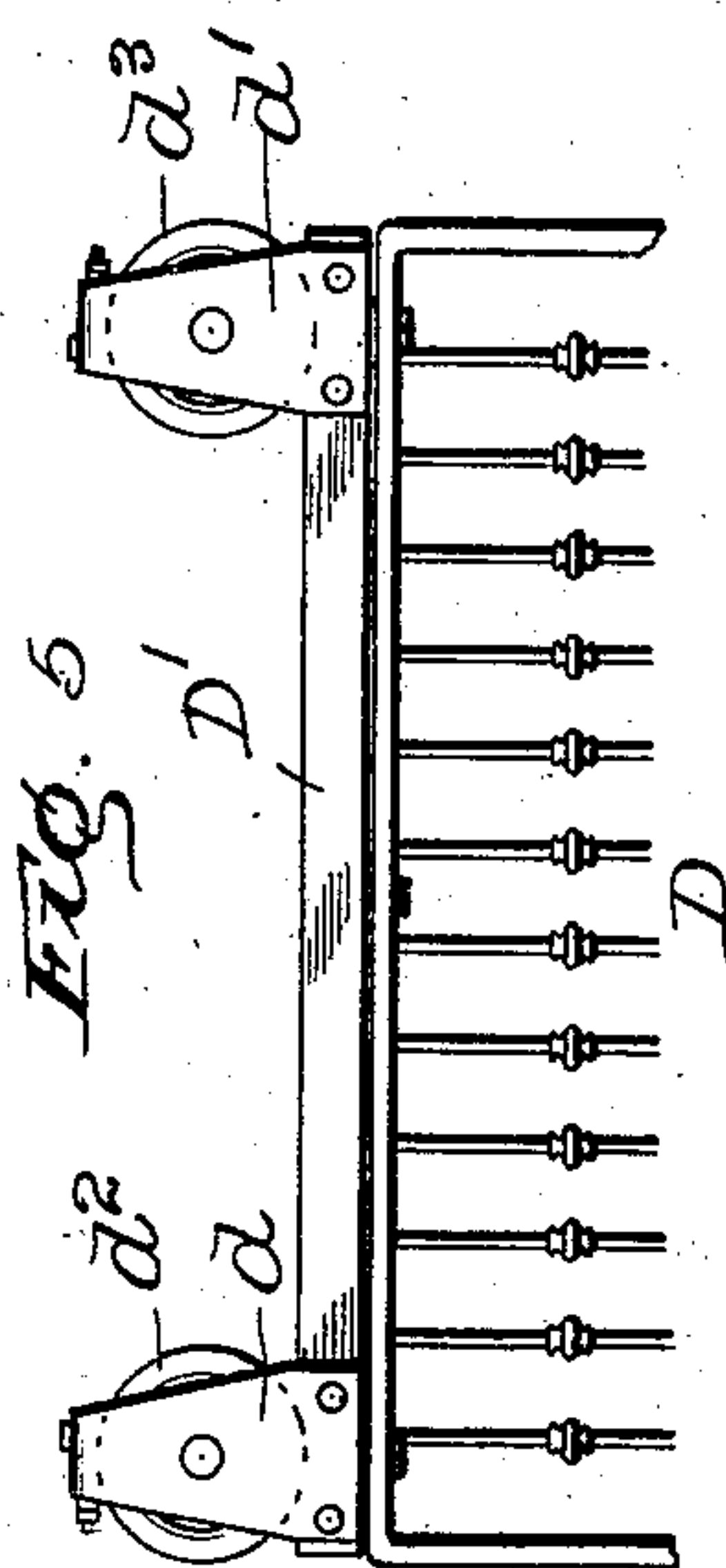
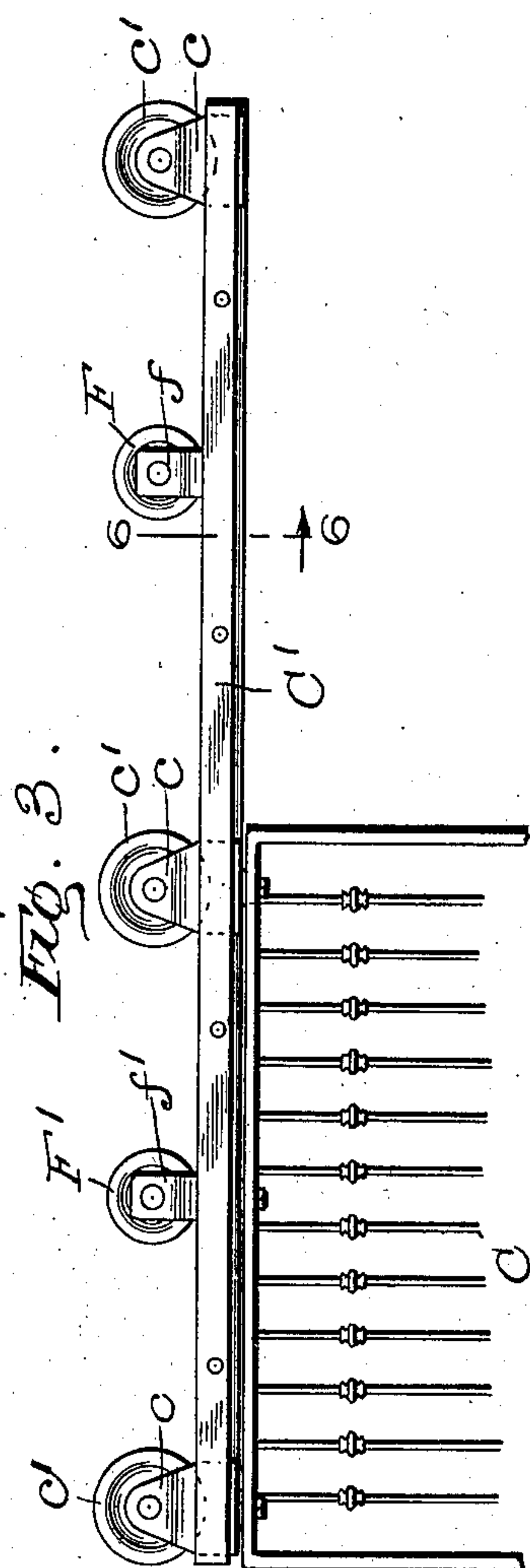
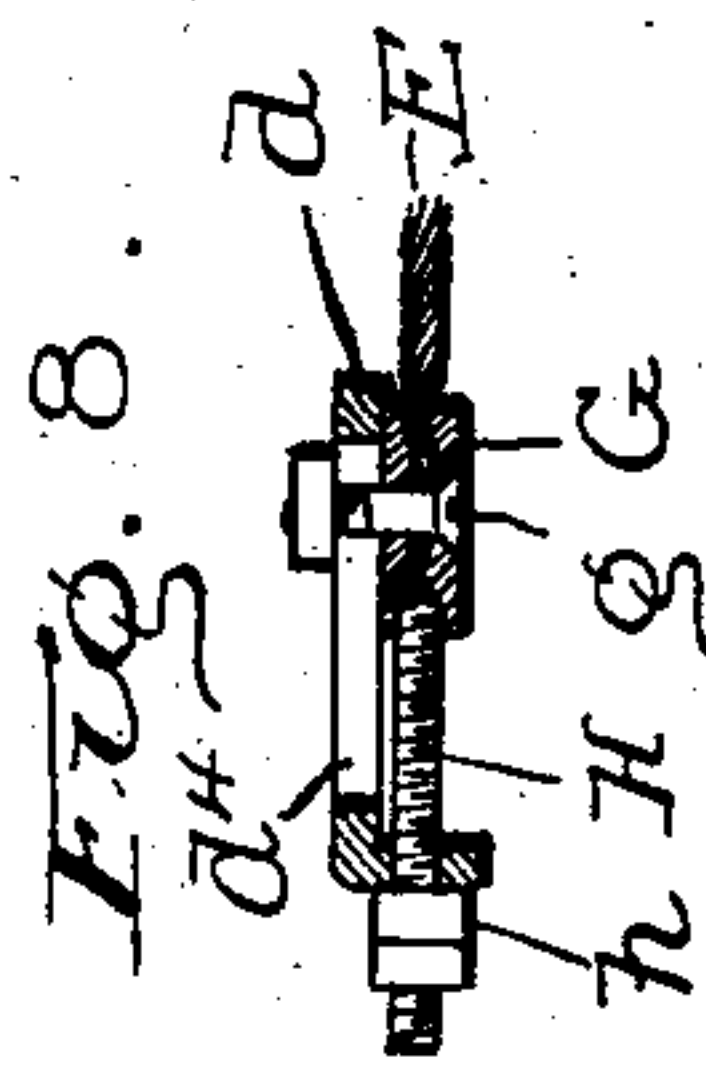
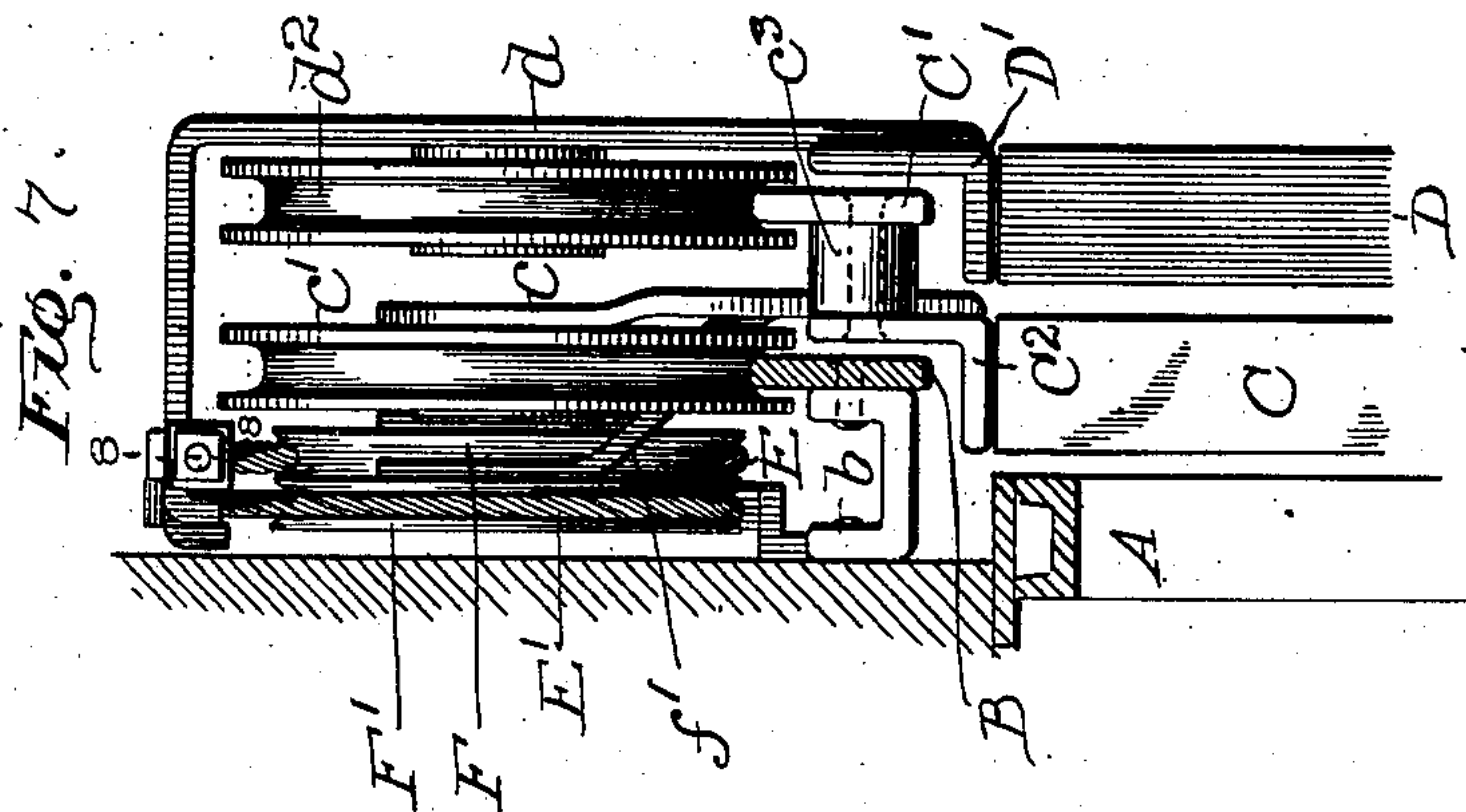
by W. T. Bixler
Att'y.

F. A. WINSLOW.
ELEVATOR DOOR OPERATING MECHANISM.

APPLICATION FILED MAR. 2, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses:
Russell Miles
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Inventor:
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Atty.

UNITED STATES PATENT OFFICE.

FRANCIS A. WINSLOW, OF CHICAGO, ILLINOIS.

ELEVATOR-DOOR-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 737,308, dated August 25, 1903.

Application filed March 2, 1903. Serial No. 145,628. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS A. WINSLOW, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Elevator-Door-Operating Mechanism, of which the following is a specification.

My invention relates to certain new and useful improvements in elevator-door-operating mechanism; and its object is to produce an improved device of the class wherein two doors together close an opening in the elevator-well and where the two doors simultaneously slide behind the wall of the inclosure, one of the doors moving at a greater speed than does the other, so that the two arrive simultaneously in their open and in their closed positions.

To this end my invention consists in certain novel features of construction, which are clearly illustrated in the accompanying drawings and described in the specification.

In the aforesaid drawings, Figure 1 is an elevation of my improved mechanism looking from the inside of the well. Fig. 2 is a top plan of the same. Fig. 3 is an elevation of the upper part of the slow door and such parts of the mechanism as are attached thereto. Fig. 4 is a plan of the parts shown in Fig. 3. Fig. 5 is an elevation of the top part of the fast door and the parts of the mechanism attached thereto. Fig. 6 is an enlarged vertical cross-section in the line 6 6 of Fig. 3 looking in the direction of the arrow there shown. Fig. 7 is a similar section in the line 7 7 of Fig. 1 looking in the direction of the arrow, and Fig. 8 is a section in the line 8 8 of Fig. 7.

Referring to the drawings, A represents the wall of the inclosure, provided with a doorway in the ordinary manner. To the wall A immediately above the doorway is secured a track B by brackets *b*, upon which track B runs a door C. This door C is the slow door—that is, it merely moves from the position shown in Fig. 1 a distance equal to its own width, so as to lie behind the wall of the inclosure. To the top of the door C is secured a stiff bar *C*², preferably of angle-iron, which supports a second track *C'*, extending parallel with the main track B and preferably in the same horizontal plane. This track is sepa-

rated from the bar *C*² by means of struts *c*³ and extends immediately over the fast door. The track *C'* is of such length that the fast door may slide from a position at one side of the slow door to one immediately in front of it, and upon such doors as are shown in the drawings the track *C'* is twice as long as the width of one of the doors. Upon the bar *C*² are secured three hangers *c c c*, bearing rollers *c' c' c'*, which run upon the track B. This, it will be seen, affords the means by which the slow door is supported upon the stationary track B.

D is the fast door. It is also provided with an angle-iron bar *D'*, upon which are secured two hangers *d d'*, bearing rollers *d² d³*, by which it is supported upon the track *C'*.

I consider this manner of supporting two doors of this type particularly advantageous, for the reason that it dispenses with the necessity of providing a plurality of overlapping tracks upon the wall of the inclosure. It is a peculiarly compact and simple device for the purpose, and therefore advantageous.

The means by which the movement of the two doors is synchronized, so that they shall reach their open and closed positions at the same time, will now be described. To the wall of the inclosure adjacent to the two ends of the track B are secured brackets *a a'*, to which are in turn secured flexible members, preferably cables, *E E'*. To the slow door are secured brackets *f f'*, which support in turn pulleys *F F'*. The cable *E*, running from the bracket *a*, extends under the pulley *F*, and its opposite end is secured in the bracket *d* upon the fast door. The rope *E'*, running from the bracket *a'*, is passed under the pulley *F'* and thence to the bracket *d'* on the fast door, where it is secured in place.

The operation of this synchronizing device will be readily apparent. When the fast door is pushed to the left in Fig. 1 to open the door, the end of the cable *E*, which is secured to the bracket *d*, is pulled to the left and runs over the pulley *F*, thereby drawing the slow door also to the left, but at half the speed. When the door is open and it is desired to close it, the end of the rope *E'*, which is secured to the bracket *d'*, runs over the pulley *F'* in a like manner and draws the slow door to the right, but at half the speed

of the fast door. In this way the two doors always reach their open and closed positions at the same time.

The means by which the ends of the cables are secured in the brackets on the fast door is capable of considerable variation; but the preferred means for thus securing the cable in place is shown in Fig. 8, where the cable E is shown gripped in place in a sleeve G, slidable upon the bracket *d* and guided thereon by a set-screw and nut *g*, running in a slot *d*⁴ in the bracket. A regulating-screw H and lock-nuts *h* are provided to draw the screw H along the slot *d*⁴ to take up slack in the cable.

I realize that considerable variations are possible in the details of this construction, and I therefore do not intend to limit myself to the specific form herein set forth except as pointed out in the claims.

I claim as new and desire to secure by Letters Patent—

1. The combination with a wall of an inclosure provided with a doorway, and a track secured to said wall, of a door, rollers secured to the door running upon said track, a second track secured to said door, a second

door, and rollers thereon running on the track upon said first door, said two doors being adapted, when side by side, to close said doorway and to be slid one beside the other behind the wall to open the doorway.

2. The combination with the wall of an inclosure provided with a doorway, and a track supported on the wall adjacent to said doorway, of an inner door, rollers upon the door running upon said track, a second track supported on said inner door and extending beyond the edge of said door, an outer door, and rollers secured thereto running upon the track on said inner door, said two doors being adapted, when extended, to close said doorway and being adapted to run one beside the other behind the wall to open the same.

In witness whereof I have signed the above application for Letters Patent at Chicago, in the county of Cook and State of Illinois, this 17th day of February, A. D. 1903.

FRANCIS A. WINSLOW.

Witnesses:

W. T. BOWYER,

W. R. ADAMS.