

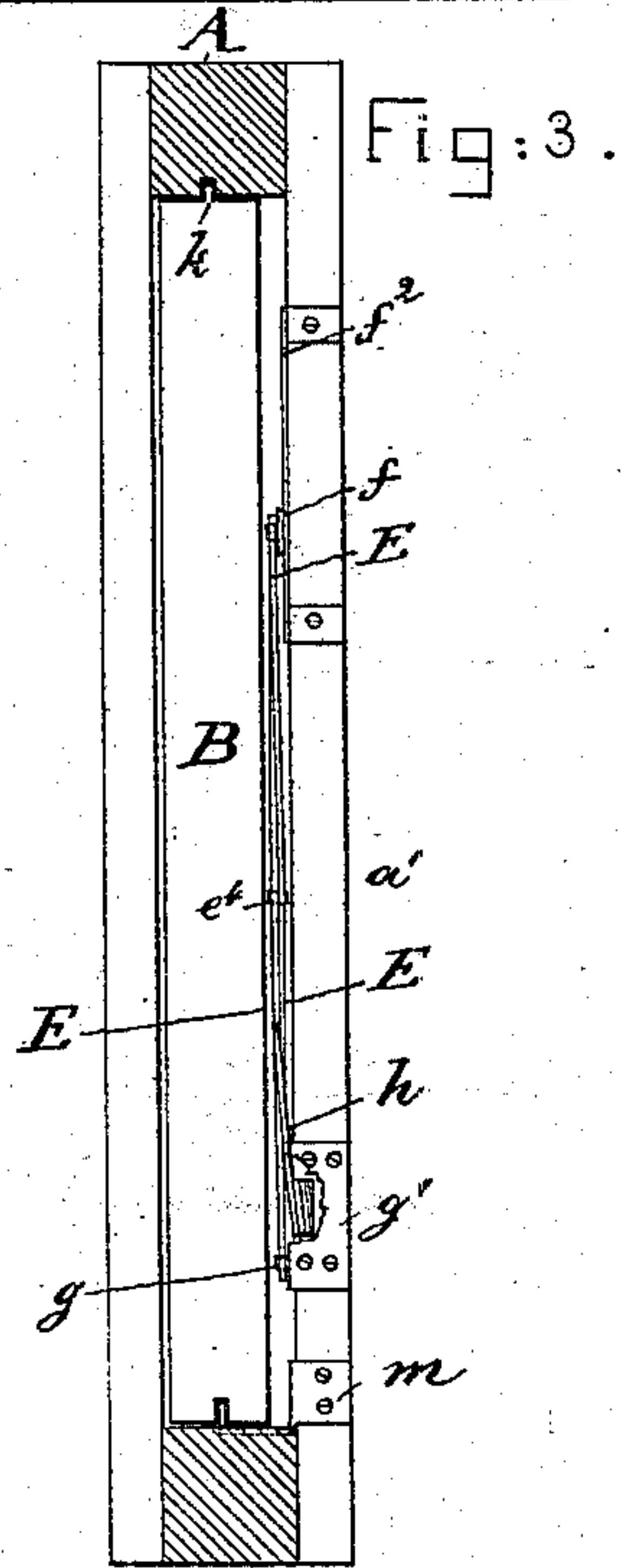
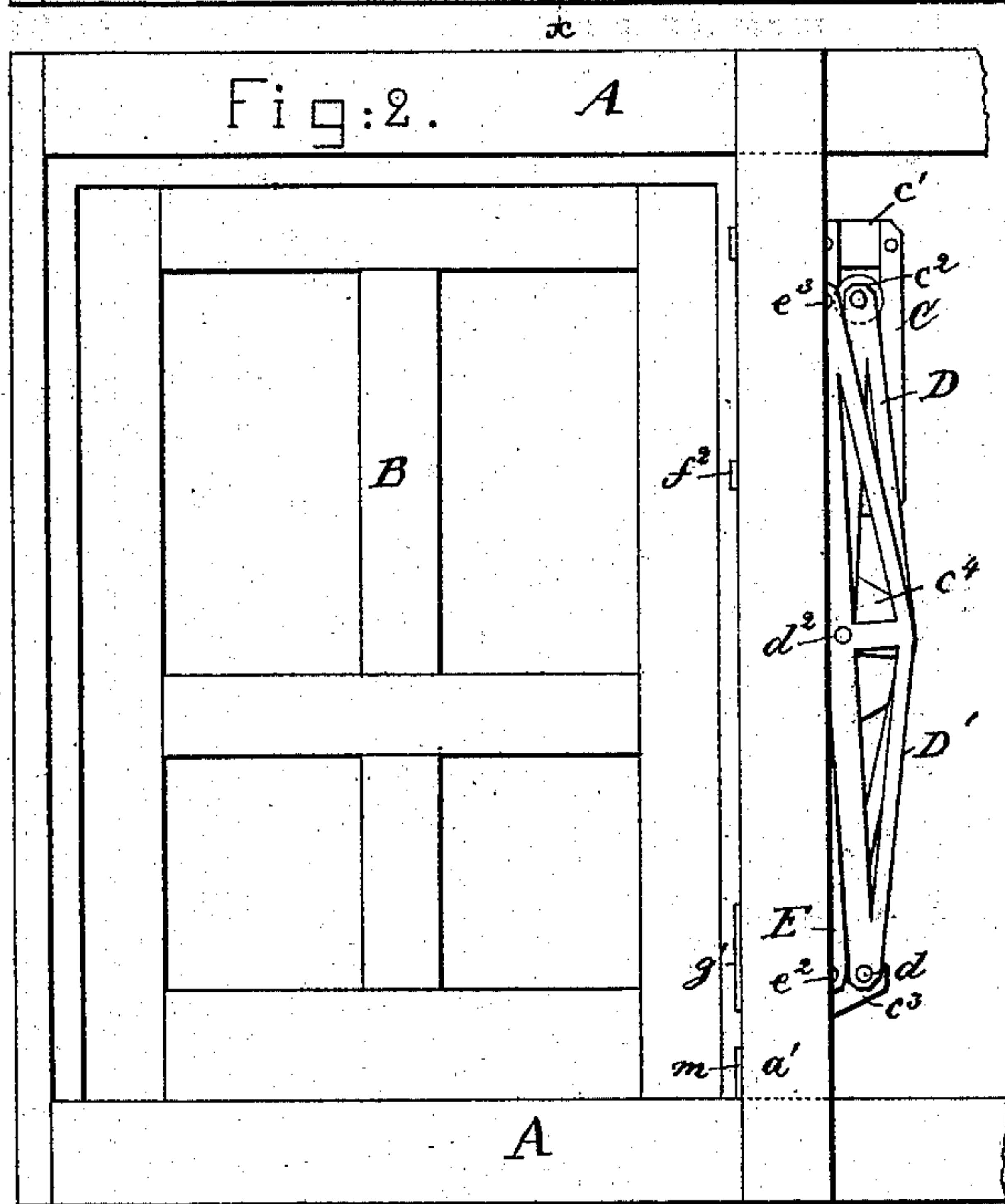
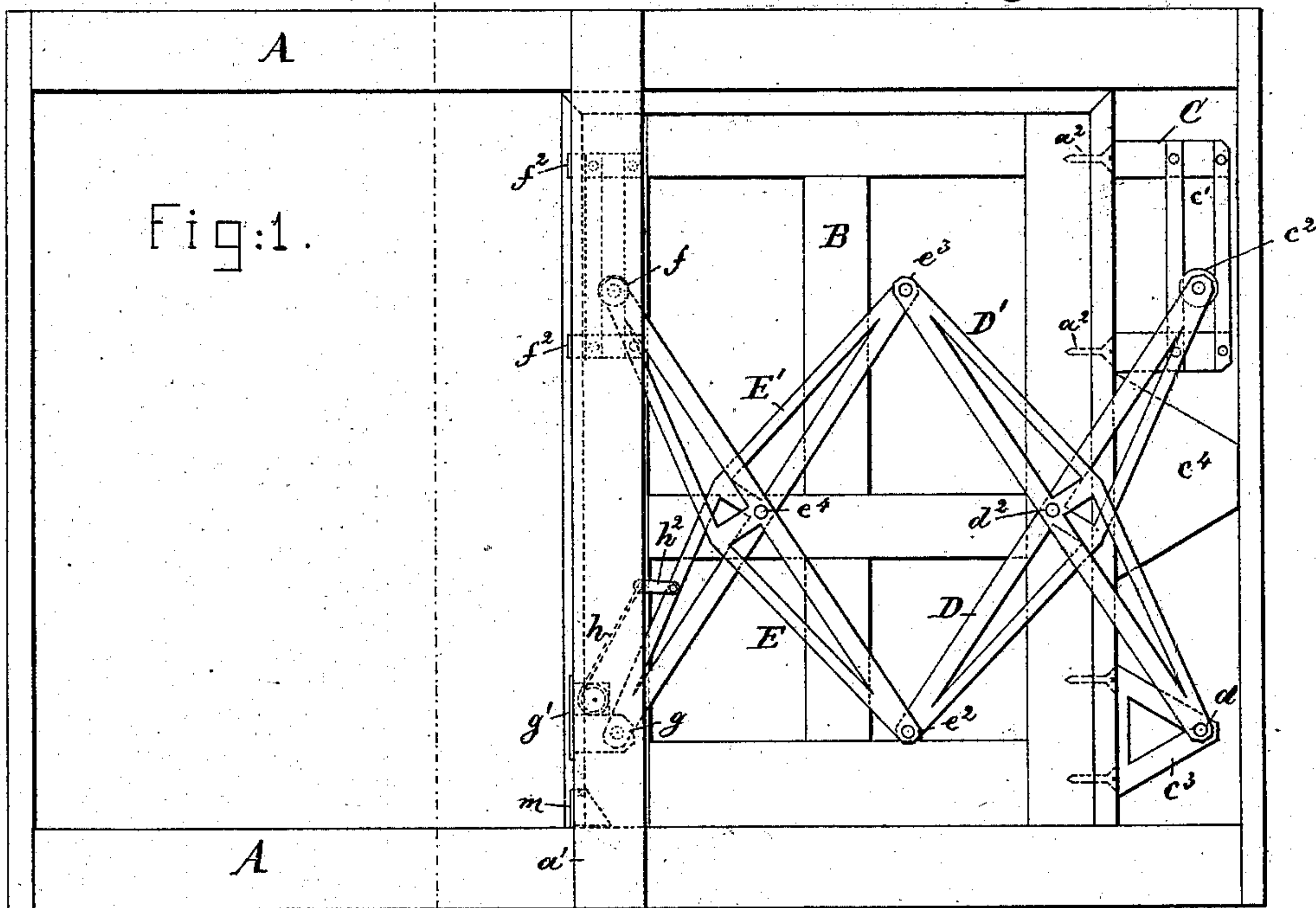
(No Model.)

E. PRESCOTT.

DOOR HANGER.

No. 283,279.

Patented Aug. 14, 1883.



Witnesses.

Fred A. Powell.
John F. C. Prentiss

Inventor.

Edwin Prescott.
by Crosby & Gregory attys.

UNITED STATES PATENT OFFICE.

EDWIN PRESCOTT, OF ARLINGTON, MASSACHUSETTS.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 283,279, dated August 14, 1883.

Application filed May 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWIN PRESCOTT, of Arlington, county of Middlesex, State of Massachusetts, have invented an Improvement in Door-Hangers, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a hanger for the support of parlor and other doors which slide back between partition-walls, and are entirely concealed within the said partition, the door being supported only at its back edge, to which the hanger is attached.

This invention is an improvement on the class of hangers represented in United States Patents No. 183,325, dated October 17, 1876, and No. 205,763, July 9, 1878, heretofore granted to me. In my Patent No. 205,763, I showed the levers compounded to be applied to a very broad door, one of the levers of each pair being made as a truss, and the said levers were attached to the said door at or near the center of its width, thus defacing the door, and the said hangers commenced to show at the side of the door when the latter was about half closed, and were exposed more and more as the door was further closed. It will also be noticed in the said patent that one of the levers passed through the other, which made it necessary to leave a large space between the face of the door and the partition with which one end of the levers was attached, which space in dwellings is very objectionable; and, further, each extreme or end connection of each lever with either the door or the partition or another lever was at opposite sides of said lever, near its end, so that the weight of the door always exerted a twisting as well as a transverse strain on each lever. Levers such as described in said patent, if attached, as herein shown, to the back edge of the door, would fail to properly support the latter. In the hangers constructed as shown and described in my Patent No. 183,325, the horizontal movement of the door is limited by the length of the levers, and such levers are not adapted for broad doors.

In my present invention the tendency of the levers to spread apart, owing to their

weight, and to move too rapidly and with a constantly accelerated force, due to the action of gravity, thus tending to slam the door back in the partition, is counteracted or checked by a spring, and to obviate the space referred to between the door and partition, and overcome the twisting tendency of the levers, as hereinbefore referred to, I have contrived to arrange the pivotal point of the levers with each other and with the door and partition as nearly as possible in the same line, and as closely as possible to the plane of movement of the side of the door next which the hanger is placed. To accomplish this compact arrangement of parts I have compounded the levers, in order to adapt them to broad doors, and I have so arranged the pivotal points that the levers do not pass each other, and the pivots of two of the series of levers are extended from the same instead of from opposite sides of the said levers, as in my former patents.

My invention consists in details of construction herein described, and more specifically pointed out in the claims.

Figure 1 represents in elevation an open door hung by my improved hangers, the partition back or to the right of the jamb being removed. Fig. 2 shows the door closed; and Fig. 3 is a section on the dotted line *x*, Fig. 1, looking toward the right.

In the drawings, A is supposed to represent the frame of a door, and *a* the jamb. The door B, at its rear or back edge, has a slotted guide, C, attached to it by suitable screws, *a*², (shown by dotted lines,) the said guide being preferably of wrought metal, and having a slot or way, *c*¹, to receive the roller *c*², mounted on a pin secured to the door-lever D. The lower part of the edge of the door has attached to it a bracket, *c*³, which supports the pivot *d*, that sustains the lower end of the door-lever D'. The door has a bumper, *c*⁴, located, preferably, as shown. The door-levers D D' are connected together by a pivot, *d*², and at their ends are connected, respectively, with the post-levers E and E' by pivots *e*² *e*³. The post-levers E E' are pivoted one on the other at *e*⁴, and the lever E, at its upper end, has a roll, *f*, which enters a slot in a guide, *f*², (both shown in dotted lines, Fig. 1, they being substantially the same as the guide

C and rod c^2 , previously described;) but it will be noticed that the roll c^2 is mounted on a pivot projected from the rear side of lever D, whereas the roller f is mounted on a stud projected from the front side of the lever E. The post-lever E', at its lower end, is pivoted at g upon a bracket, g' , (both shown in dotted lines, Fig. 1,) the said bracket being attached to the door-jamb by suitable screws.

It will be observed that both the pivots of the ends of the lever D' project from it in the same direction, and such is also the case with the pivots of the lever E'; but both the pivots of the lever D' project from it in a direction opposite that of the pivots of the lever E'. The pivots of each lever D E extend from opposite sides thereof, as in my former patents, and from an inspection of Figs. 1 and 2 it will be seen that the lever E crosses the lever E' in front, while the lever D is crossed at its front by the lever D'. Such arrangement of the levers permits them to be shut or brought together when the door is closed, as in Fig. 2, and as the door is closed the pivots of the rolls c^2 and f are brought closely together, as are also the pivots d and g , and at such time the levers E' D stand, respectively, behind the levers E D', and the levers D D' close with their straight edges against the straight edges, respectively, of the levers E' E, which makes the most compact arrangement which is possible of the various parts, so that they occupy the least possible space in the direction of the thickness of the door or of the thickness of the partition in which the door slides.

The levers are made as trusses, to give strength and to secure lightness, and to enable them to be folded closely. Two of them are made straight at their rear edges, while the other two are straight at their front edges.

To retard the opening movement of the door and its tendency to descend by gravity, owing to the weight of the levers, I have provided a rather stiff wire spring, h , the coil of which is suitably fastened to the bracket g' , while its upper end is loosely attached to the post-lever

E', the connection, as herein shown, being by means of a link, h^2 , but instead the end of the spring might be bent to engage a part of the said lever; and so, also, it will be understood that if the coil of the spring were made to coincide with the pivot g , the upper end of the said spring might be rigidly attached to the said lever.

The upper and lower ends of the door are suitably guided to prevent undue lateral movement, and, as herein shown, (see Fig. 3,) the upper end of the door has a projection, k , to enter a suitable groove in the casing or frame A, while at its lower end the door has a groove to receive in it the upwardly-bent end of a door-stay, m , screwed to the jamb. Viewing Fig. 2, it will be noticed that the hangers are not exposed when the door is closed.

I claim—

1. The guide C and bracket c^2 , adapted to be attached to the rear edge of the door, combined with the two door-levers and their connected post-levers, one of the said post-levers being pivoted with relation to the jamb, while the other one is controlled by a guide, to operate, all substantially as described.

2. The two truss-shaped door-levers having straight front edges, combined with the two truss-shaped levers having straight rear edges, and connected with each other and with the door and partition or jamb, as described, whereby the said door and post levers may close closely behind and in contact with each other, as and for the purposes set forth.

3. A door-lever and connected post-lever, combined with a spring to retard the movement of the door due to the weight of the hanger, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN PRESCOTT.

Witnesses:

G. W. GREGORY,
B. J. NOYES.