

(No Model.)

2 Sheets—Sheet 1.

T. CHARRON.

DEVICE FOR OPERATING AWNINGS.

No. 365,239.

Patented June 21, 1887.

Fig: 1.

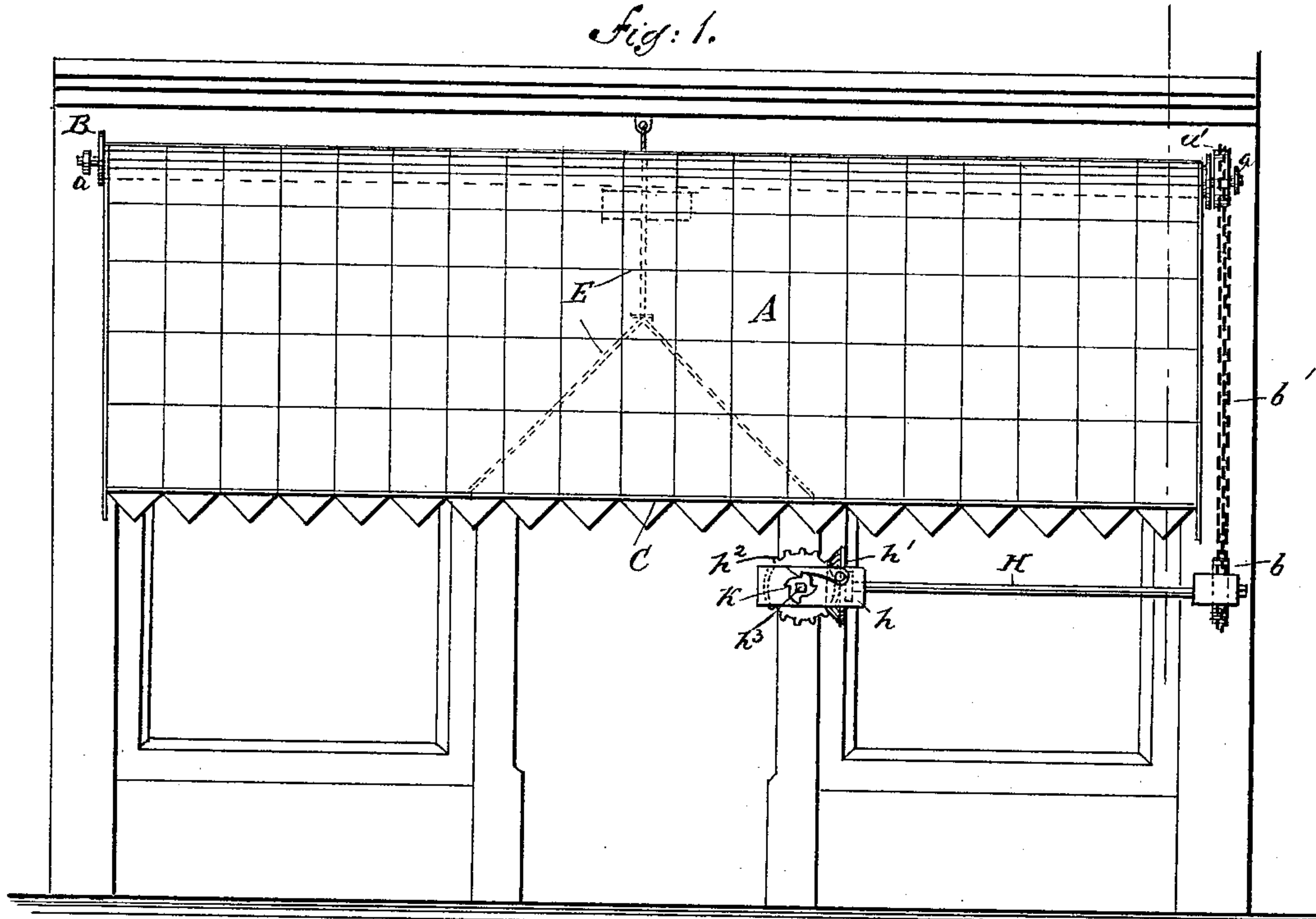
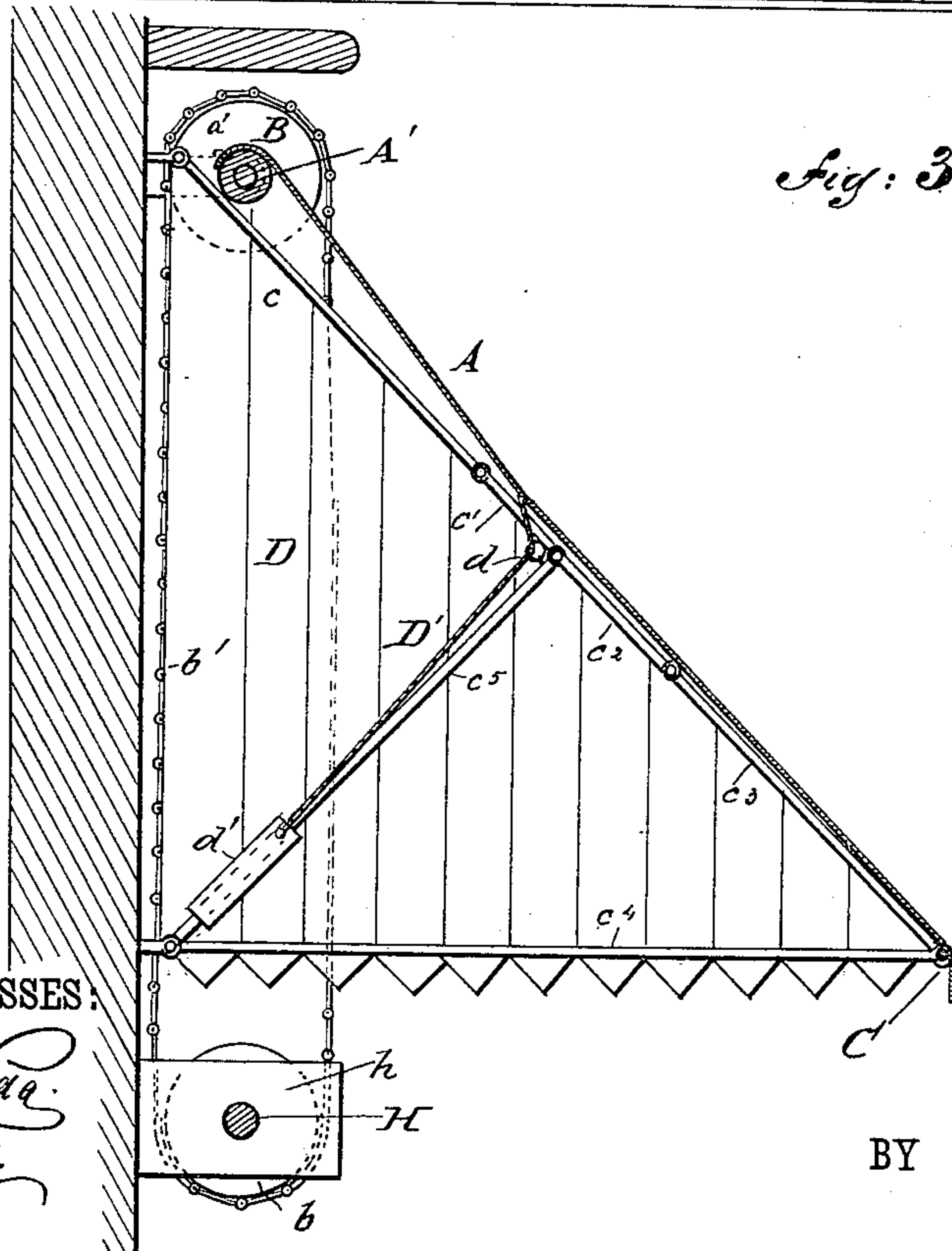


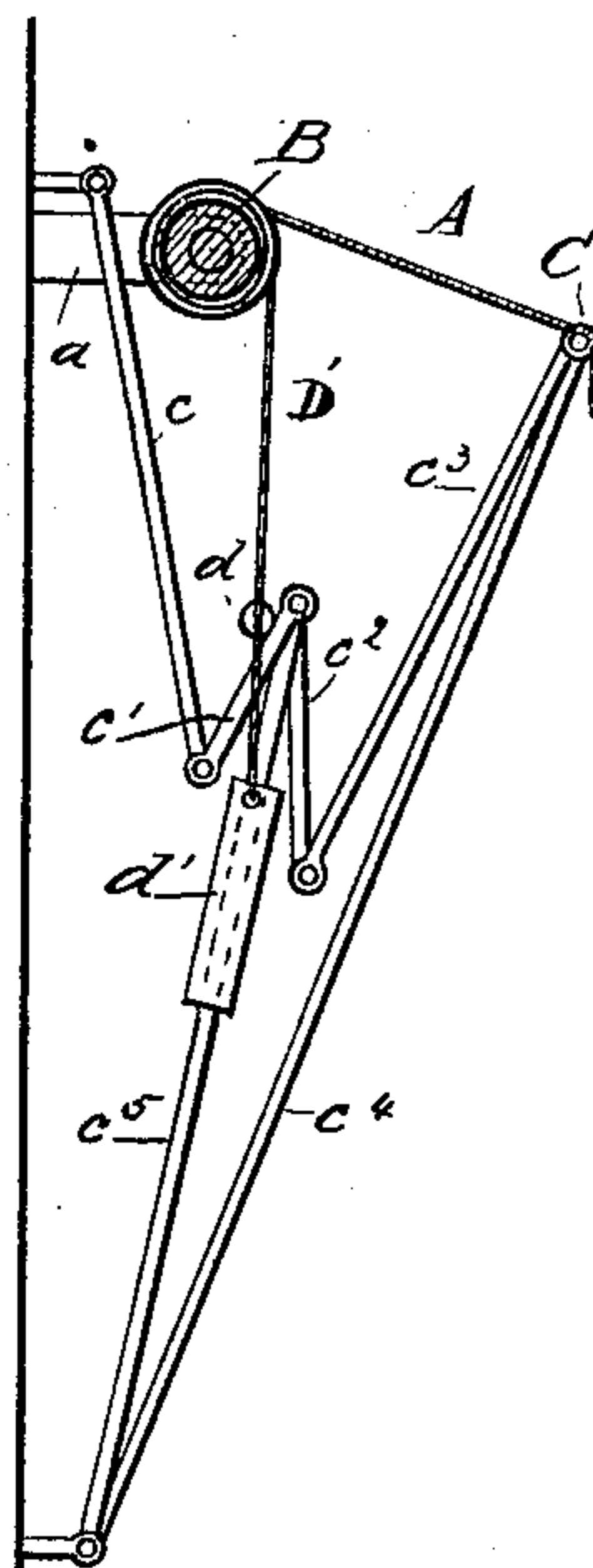
Fig: 2.



WITNESSES:

Chas. N. V. a.
C. S. G. v. i. o. k.

Fig: 3.



INVENTOR:

T. Charron

BY

Munn & Co.

ATTORNEYS.

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Fig: 4.

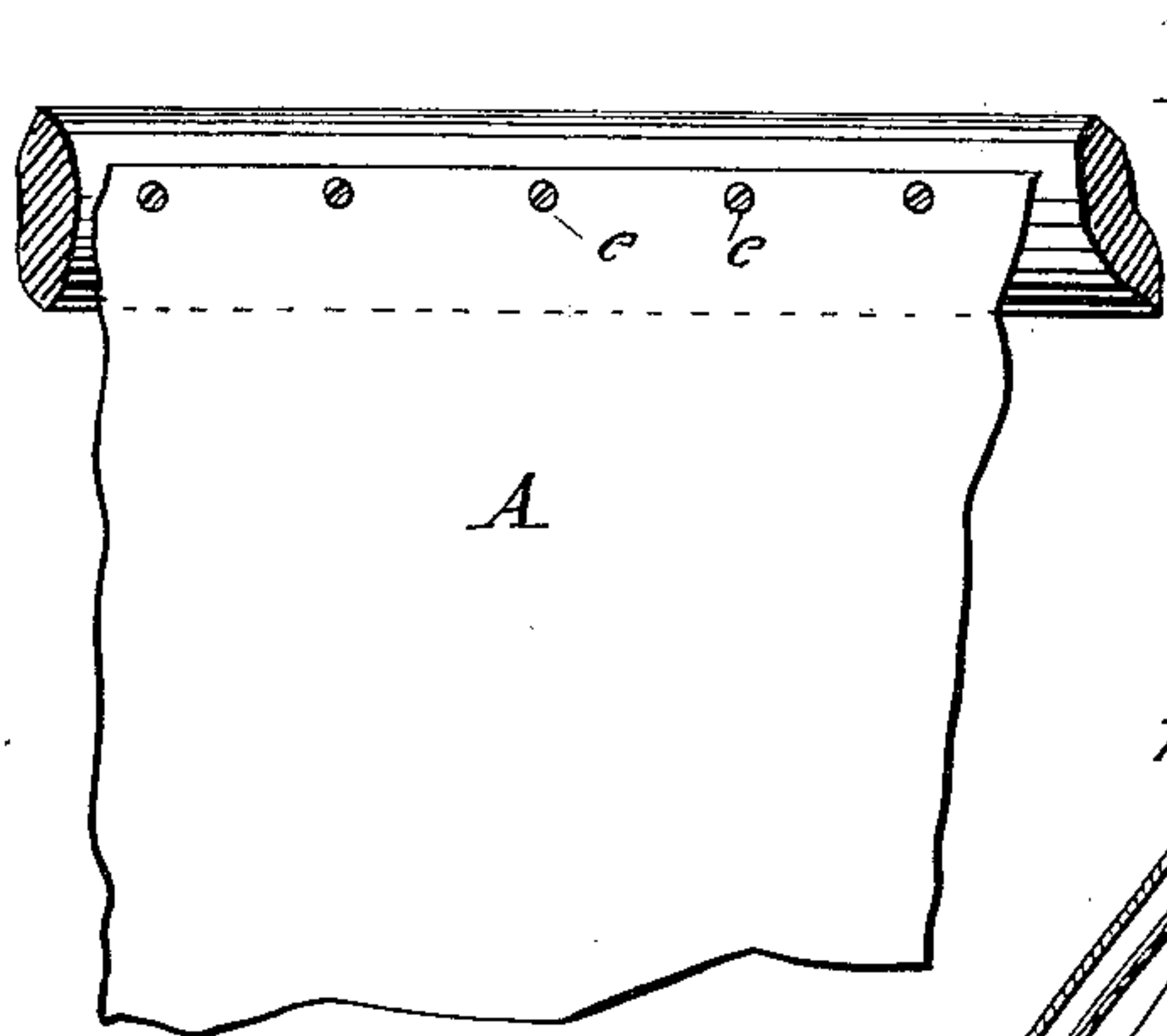


Fig: 5.

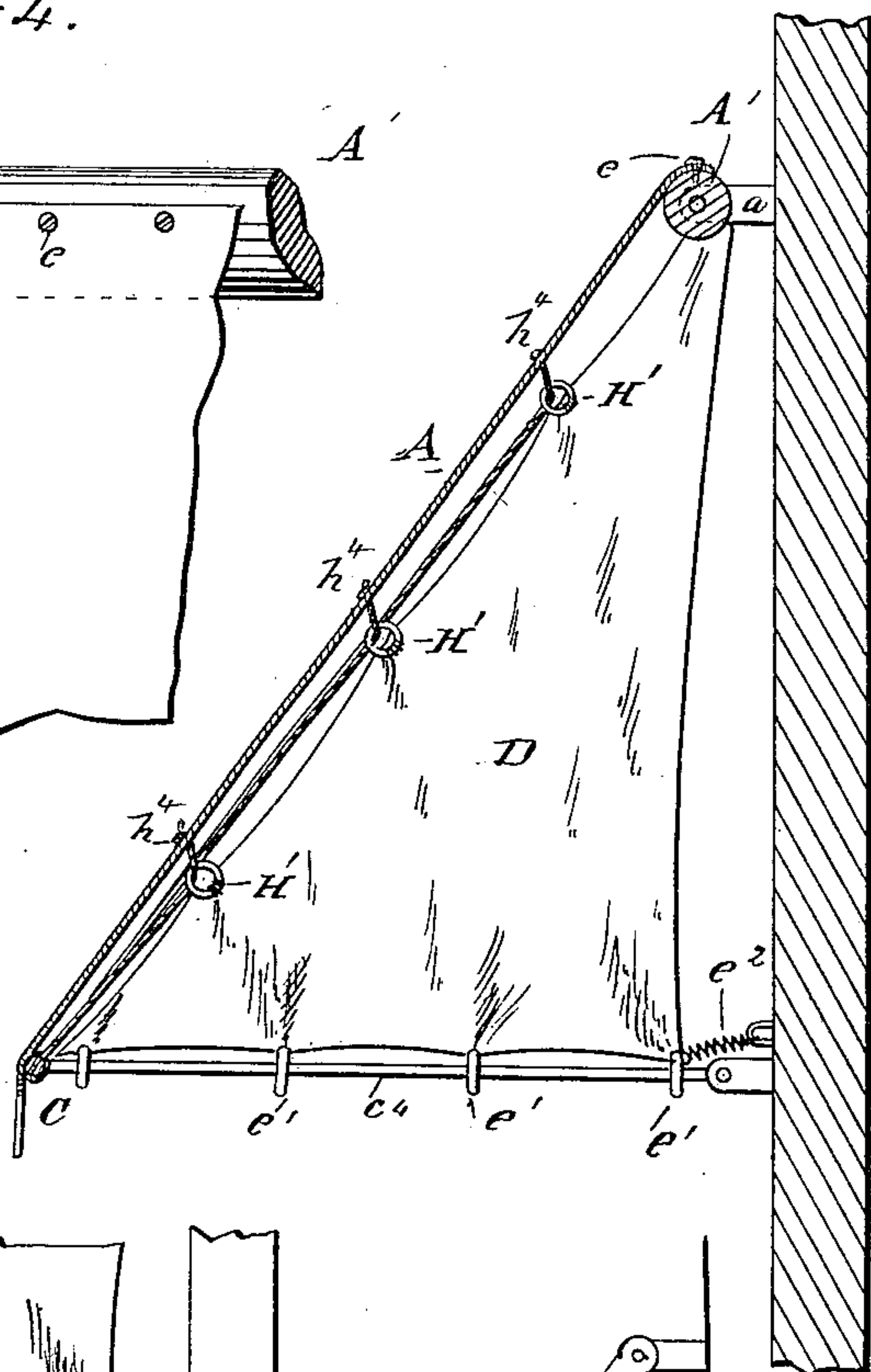


Fig: 6.

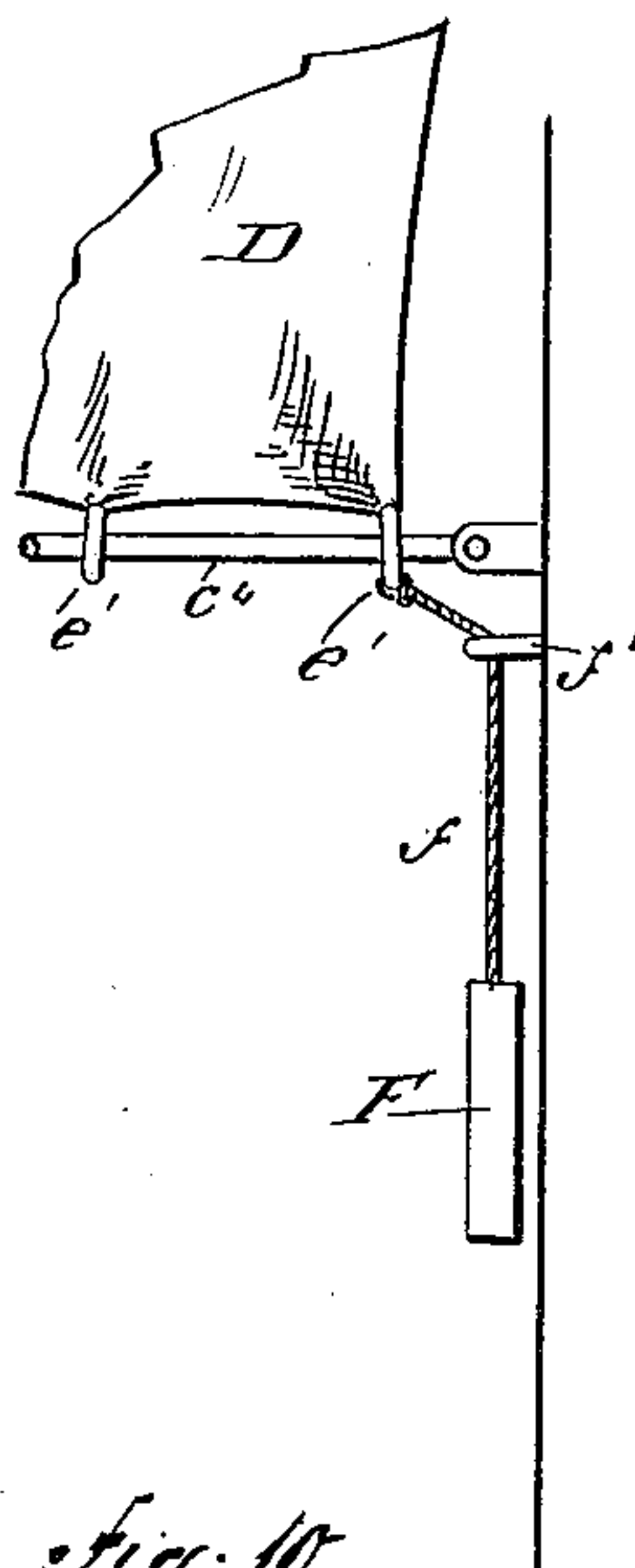


Fig: 7.

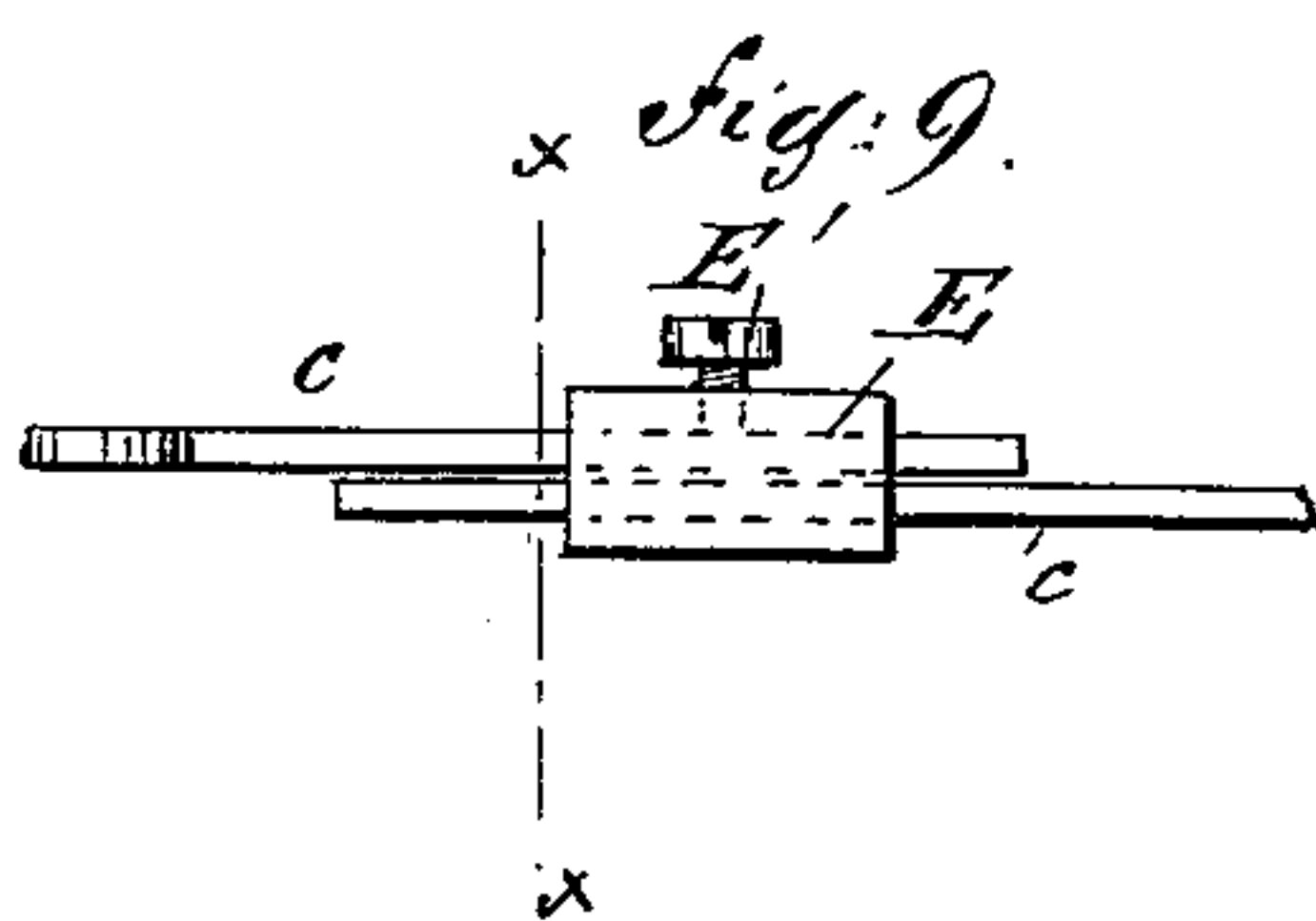
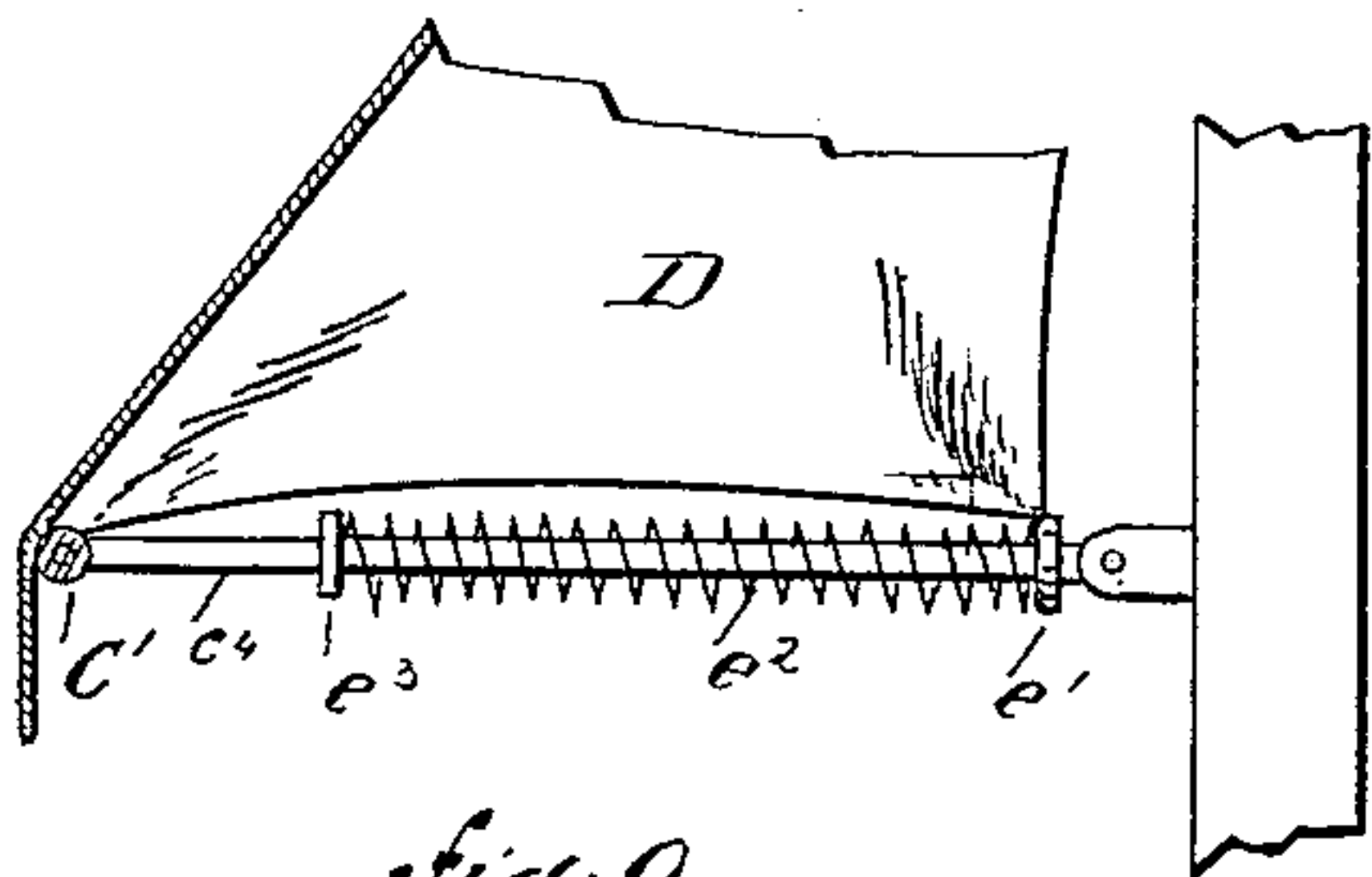


Fig: 8.

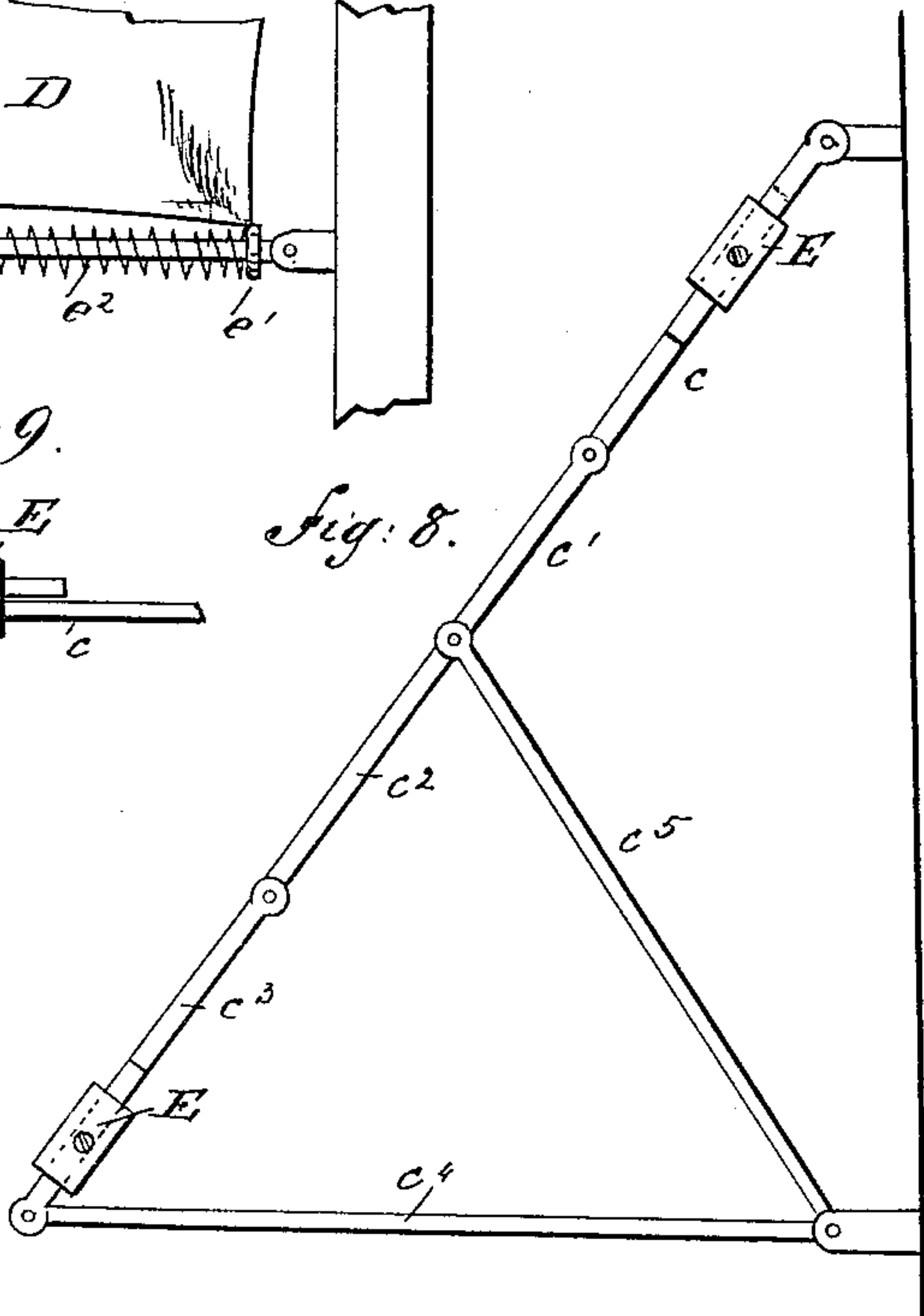
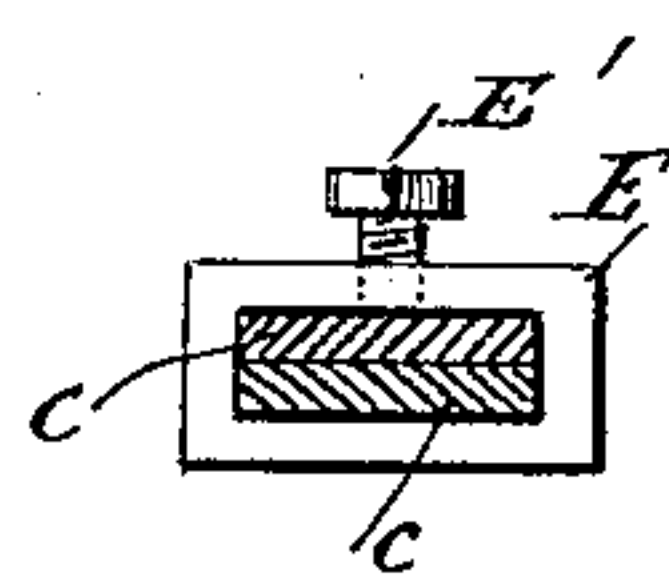


Fig: 10.



WITNESSES:

Chas. N. V. A.
C. Sedgwick

INVENTOR:

T. Charron

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

THEOPHILE CHARRON, OF KANKAKEE, ILLINOIS, ASSIGNOR TO HIMSELF
AND HENRY C. COOPER, OF SAME PLACE.

DEVICE FOR OPERATING AWNINGS.

SPECIFICATION forming part of Letters Patent No. 365,239, dated June 21, 1887.

Application filed April 26, 1887. Serial No. 236,179. (No model.)

To all whom it may concern:

Be it known that I, THEOPHILE CHARRON, of Kankakee, in the county of Kankakee and State of Illinois, have invented a new and Improved Device for Operating Awnings, of which the following is a full, clear, and exact description.

My invention relates to a device for operating awnings, and has for its object to provide a means whereby an awning may be readily raised and lowered, and wherein the said awning, when raised, will be wound upon a suitable roller and be thereby protected from the weather and prevented from creasing, and wherein the awning will be securely held in an open position.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of an awning having my improvements attached. Fig. 2 is a central vertical section through the same open, and Fig. 3 is a similar section when the awning is partially closed. Fig. 4 is a sectional view illustrating the mode of attachment of the front awning to the roll. Fig. 5 is a transverse vertical section through the complete awning, illustrating a connection between the front and side awnings and means for retaining the side awning in close to the building. Figs. 6 and 7 are modified forms of Fig. 5. Fig. 8 is a side elevation of the side frame, illustrating the adjustability thereof; and Fig. 9 is a partial edge view of the adjustable bars of said frame. Fig. 10 is a transverse section through line *xx* of Fig. 9.

In carrying out the invention the awning is represented as applied to a store-front, the front of the awning *A* being secured to a roller, *A'*, at the top, which is mounted in suitable brackets, *a*, secured to the front of the house *B*.

Intervening one end of the roller and the bracket a sprocket-wheel, *a'*, is made fast to the axis of the roller, as shown in Fig. 1.

Above and inside of the brackets *a* suitable eyes are attached to the wall, in which eyes the sides of the awning-frame are pivoted, which sides consist of six pieces pivoted one to the other, one bar, *c*, being pivoted to the aforesaid eye, a second short bar, *c'*, pivoted to the end of the upper bar, *c*, a slightly longer bar, *c''*, pivoted to said short bar, and a lower end bar, *c'''*, of substantially the same length of the upper bar, *c*, is pivoted to the aforesaid intermediate bar, *c''*, the four combined bars forming the inclined side of the side frames.

A horizontal bar, *c''''*, is pivoted at one end to the building and at the other to the lower end of the lower side bar, *c'''*, the pivotal connection between the bars *c'''* and *c''''* being effected by a rod, *C*, equal to the length of the awning-front *A*. To complete the side frame, the sixth rod, *c'''''*, is pivoted to the building at one end by the same pivotal pin attaching the horizontal rod *c''''*, the other end of the rod *c'''''* being pivoted between the overlapping ends of the intermediate short rods, *c''* and *c'''*.

The side awnings, *D*, are attached in any suitable manner to the combined pivoted inclined rods, and also to the horizontal rod *c''''*, and the front awning, *A*, is held in engagement with the side awnings by means of a cord or rope, *D'*, attached to the former, which, passing through a ring, *d*, secured to the upper inside portion of the side awning, is carried downward and made fast to a weight, *d'*, sliding upon the brace-rod *c'''''*, as shown in Fig. 2.

When the awning is elevated, the rods constituting the side frame fold upward substantially upon each other, as shown in Fig. 3, the weight *d'* also sliding upward upon the brace-rod *c'''''*, and when the awning is lowered the weight, descending automatically, brings the front and side awnings in contact, the rod *c'''''* acting as a brace for the combined rods *c*, *c'*, *c''*, and *c'''*.

To assist in supporting the lengthy front rod, *C*, to which the lower end of the front awning, *A*, is attached, two ropes, *E*, are attached to said rod each side the center, which, merging in a single rope, are attached to the building above and behind the roller *A'* at or

near the forking of the rope E. The said rope is attached to the awning, so that when the awning-front is wound upon the roller the rope will also wind smoothly with it.

5 Beneath the awning, in vertical alignment with the sprocket-wheel *a*, a second sprocket-wheel, *b*, is journaled upon the building, and the two sprocket-wheels are connected by an endless chain, *b'*.

10 A shaft, *H*, is passed through the sprocket-wheel *b*, and carried transversely of the window near the door-post, where it is journaled in a suitable frame, *h*, secured to said door-post. Upon the end of the said shaft a bevel-gear, *h'*, is secured, adapted to mesh with a
15 second bevel-gear, *h''*, at right angles, journaled in the frame *h*; also, the axis *h'''* of which gear *h'*, projecting out through said frame, is made square, and provided with a ratchet-wheel, *k*,
20 adapted to be engaged by a pawl pivoted upon the frame *h*. Thus by means of any suitable crank the awning may be manipulated with celerity and ease from the doorway.

The front awning-cloth, *A*, as shown in Fig. 4, is preferably attached to the upper portion
25 of the roller *A'* by a series of screws, *e*.

The side awning-cloths, *D*, are preferably attached to the horizontal side rods, *c'*, by means of one or a series of rings, *e'*, traveling
30 upon said rod, as shown in Figs. 5, 6, and 7, and the said side cloths are held in engagement with the side of the building automatically either by means of a spring, *e''*, secured at one end to a staple in the side of the build-
35 ing and at the other to the inner ring, *e'*, as shown in Fig. 5; or the spring may be made to encircle the horizontal rod *c'*, and bear at one end against the inner end ring, *e*, and at the other against a collar, *e'''*, formed upon the
40 said horizontal side rod, as illustrated in Fig. 7. Another means that may be employed to attain the same result—namely, the retention of the side awning in contact with the building shown in Fig. 6, in which a cord, rope, or a
45 chain, *f*, is secured to the inner end ring, *e'*, which, passing through a staple, *f'*, attached to the building below the side awning-frame, is provided at its other end with a weight, *F*.

The side bars, *c* and *c''*, are made preferably
50 in two sections, as illustrated in Figs. 8, 9, and 10, overlapping each other and connected by means of a slide, *E*, provided with a screw or screws, *E'*, which, passing through the said slide, clamp the overlapping ends of the said
55 side bars in secure and rigid contact, the object being to provide a means whereby the side frame may be quickly adjusted to different-sized openings.

The side cloths, *D*, may have a series of rings,
60 *H'*, attached at intervals to its inclined edge, through which rings a series of ropes, *h''*, are made to pass, having one end fastened to the front awning, *A*, and the other end made fast to the front horizontal awning-bar, *C*, as shown
65 in Fig. 5. By this means the front cloth may be

smoothly rolled up and be kept in engagement with the side cloths at various points along the edges.

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

1. In a device for operating awnings, the combination, with the roller *B*, adapted to sustain the awning, having a sprocket-wheel, *a'*, attached to the axis thereof, of the sprocket-
75 wheel *b*, endless chain *b'*, connecting said sprocket-wheels, a horizontal shaft, *H*, extending below and parallel with said roller, a bevel-gear, *h'*, attached to said shaft within a frame, *h*, a second bevel-gear, *h''*, pivoted in
80 said frame, meshing with gear *h'*, a ratchet attached to the axis of said gear *h''*, and a pawl pivoted to said frame, all arranged substantially as shown and described.

2. The end support for an awning, consisting
85 of the combined pivoted inclined side bars, *c*, *c'*, *c''*, and *c'''*, the horizontal base-bar *c'*, and the pivoted brace-rod *c''*, adapted to connect the center of said combined inclined bars with the end of said horizontal bar, substantially as
90 shown and described, whereby all said bars act in unison, as set forth.

3. The combination, with the front awning, *A*, of the combined pivoted inclined side bars, *c*, *c'*, *c''*, and *c'''*, the horizontal base-bar *c'*, the
95 pivoted brace-rod *c''*, connecting the center of said combined inclined bars and the inner end of said horizontal bar, the side awnings, *D*, and means for automatically bringing the front and side awnings in engagement, substantially
100 as herein shown and described.

4. The combination, with the front awning, *A*, of the combined pivoted inclined side bars, *c*, *c'*, *c''*, and *c'''*, the horizontal base-bar *c'*, and the brace-rod *c''*, pivoted to said inclined side
105 bars and adapted to connect the center of the inclined bars with the end of the horizontal bars, the side awnings, *D*, and means for automatically bringing the front and side awnings in engagement, substantially as shown and de-
110 scribed.

5. The combination, with the front awning, *A*, of the combined pivoted inclined side bars, *c*, *c'*, *c''*, and *c'''*, the bar *c* being divided and united by a slide, *E*, the horizontal base-bar
115 *c'*, the brace-rod *c''*, pivoted to said inclined side bars and to said horizontal bars, the side awnings, *D*, and means for automatically bringing the front and side awnings in engagement, substantially as shown and described.
120

6. The combination, with the front awning, *A*, of the combined pivoted inclined side bars, *c*, *c'*, *c''*, and *c'''*, the said bars *c* and *c'''* being made adjustable and controlled by a slide, *E*, the horizontal base-bar *c'*, the brace-rod *c''*,
125 pivoted to said inclined side bars and to said horizontal bars, the side awnings, *D*, means for automatically bringing the front and side awnings in engagement, and means for automatically retaining the side awnings in contact
130

with the building, substantially as shown and described.

7. The combination, with the front awning, A, of the combined pivoted inclined side bars, 5 c , c' , c^2 , and c^3 , the horizontal base-bar c^4 , the brace-rod c^5 , pivoted to said horizontal and inclined side bars, a weight, d' , sliding upon said brace bar, the side awning, D, provided with an eye or ring, d , and a rope, D', con-

necting said weight with said front awning, so substantially as shown and described.

THEOPHILE ^{his} × CHARRON.
mark

Witnesses:

O. G. BARTLETT,
L. RIPLEY.