

(No Model.)

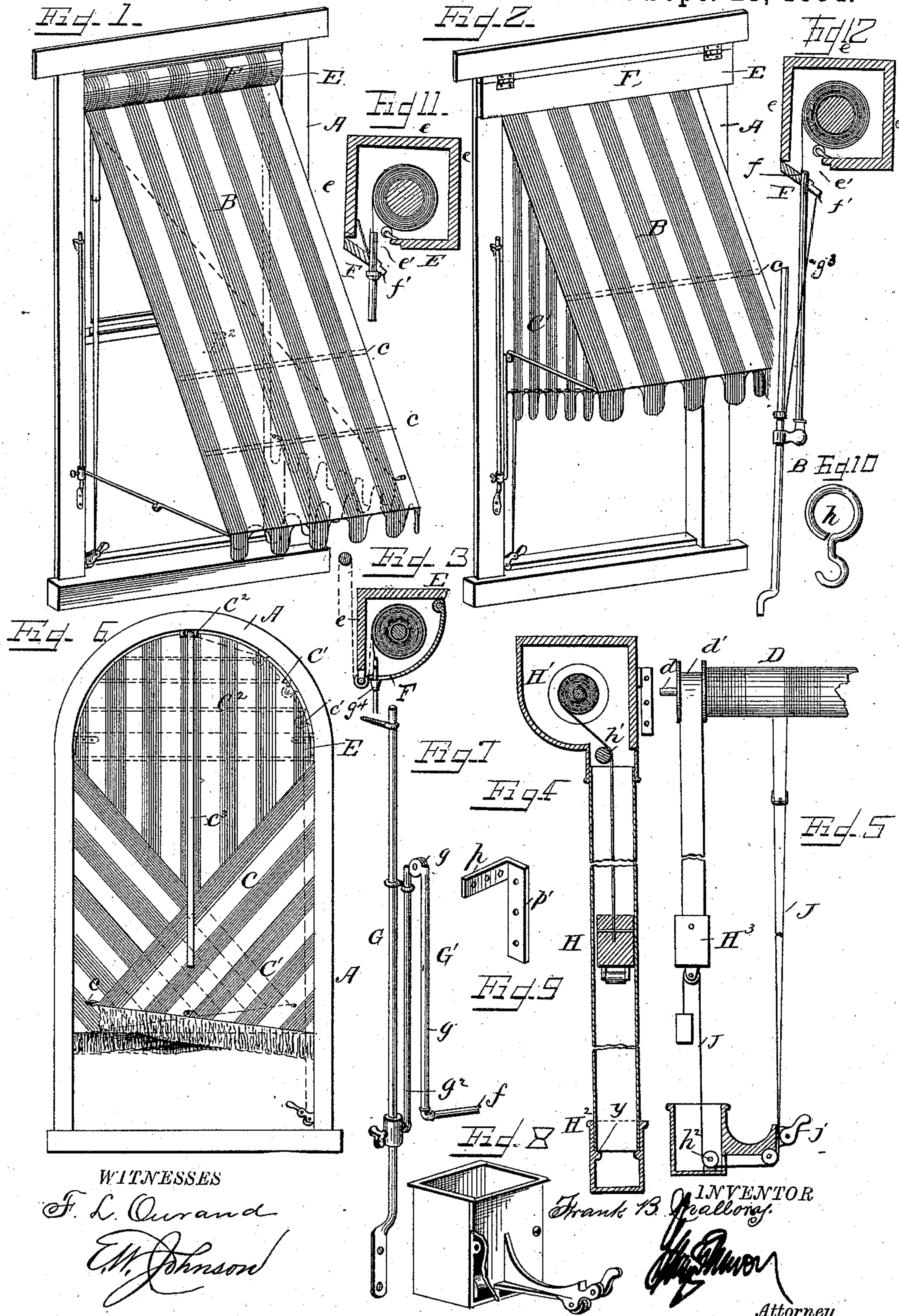
F. B. MALLORY.

2 Sheets—Sheet 1.

AWNING.

No. 305,614.

Patented Sept. 23, 1884.



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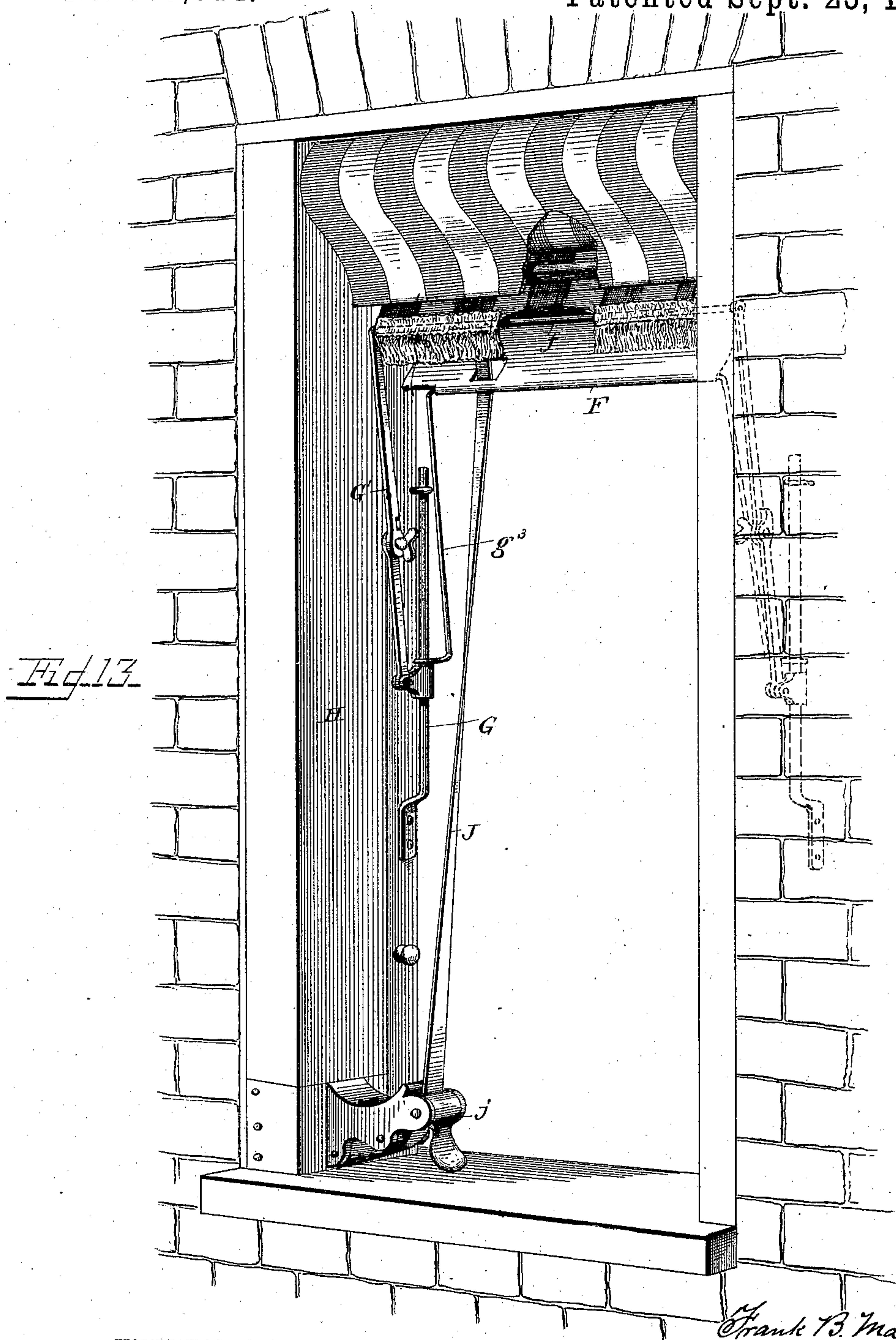
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WITNESSES

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AWNING.

SPECIFICATION forming part of Letters Patent No. 305,614, dated September 23, 1884.

Application filed April 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANK B. MALLORY, a citizen of the United States of America, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Awnings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in awnings; and it consists in the construction and combination of parts hereinafter fully set forth and explained.

In the accompanying drawings, which fully illustrate my invention, Figures 1 and 2 are perspective views showing my improved awning in different positions. Fig. 3 is a view taken through the awning-housing, showing one form of my device for closing the same. Fig. 4 is a detail vertical section of the weight and roller-casing. Fig. 5 is a detail front view of the roller, showing the operating-tapes attached thereto. Figs. 6, 7, 8, 9, 10, 11, and 12 are detail views. Fig. 13 is a perspective view of a window, showing the improved awning sectionally illustrated in Fig. 12 applied to said window.

The awning-roll D is provided at each end with suitable supporting-pivots, *d*, which operate in suitable bearings, and this roll is secured within a housing attached to the frame A, so as to afford a protection for the same from the weather.

The housing for the awning-roll D is indicated in the drawings by the letter E, and may be an independent or integral part of the frame A. In Fig. 3 this housing consists of portions *e*, which are rigid, and provided with an opening in its lower side through which the awning passes. In order to fully protect the awning from the weather, the opening in the lower portion of the housing is provided with doors F, which are hinged to the housing E, and are provided with means for closing the same when the awning is rolled up. In some cases it is necessary to hinge the door

F on the housing E at their upper edges, as shown in Fig. 3, in which case the said door will depend therefrom. In some instances, when a door is employed, as shown in Figs. 1 and 3, the same is painted, so as to present an appearance similar to the awning fabric.

To the sides of the frame A are attached vertical bars G, to which are connected and on which slide brace-rods G', having joints *g*. The arrangement of joint results in each brace-rod G' being formed of two sections, *g'* *g''*, of which the former is the outer section, and has its free end connected by a transverse rod, *f*, to the free end of the section *g'* on the opposite side of the window-frame. The said transverse rod *f* is attached to the lower edge of a portion, B, of the awning. The object of providing the brace-rod *g' g''* with knuckle-joints *g* will be readily seen by reference to Fig. 2 of the drawings, and more fully explained hereinafter.

The door F is provided at its ends with slots or recesses through which the rod *g'* passes, and is provided near its end with a projecting portion, *g'''*, which contacts with the door F, and closes and holds the same closed when the awning is raised.

The stationary bar G is provided with a sliding hook, *h*, (shown in Fig. 10,) which hook is adapted to engage with the section *g''* of the brace-rod near its joint, so as to hold the same parallel with said stationary bar G, as shown in Fig. 7.

The means which I employ for raising and lowering the awning or operating the roll D are partially inclosed within a vertical tube or casing, H, which is attached to the frame A, or may form an integral part thereof. The said receptacle consists of an upper portion, H', within which is located the drum *d'*, formed on the end of the awning-roll, and beneath said drum and transversely journaled in the receptacle is a transverse roller, *h'*, over which passes the tape, which is wound around the drum *d'*.

A box, H'', having an internal flange, *y*, on which rests the lower end of the tube H, is secured to the casing A at a suitable point thereof, and is provided with a guide-roller, *h''*, located beneath the flange *y*. An arm carrying a guide-roller and cam, *j*, is formed on

the box H'', and projects therefrom, as shown in Figs. 5 and 8. A metallic tape, which is wound around the drum d', is provided at its end located in the tube H with a weight, H''', which carries on its underside a roller around which passes a smaller tape, J, guided by the rollers located in the box H'', so as to extend upward for attachment to another tape passing around the awning-roll in a direction opposite that in which the first-mentioned tape passes around the drum d'. The end of the tape J is provided with a tension-weight designed to maintain the said tape taut and assist in lowering the awning. If the weight H''' should not be sufficient to raise the awning, it can be assisted by drawing upward upon the tape J. The awning-roll D can be prevented from turning by operating the cam-lever j to clamp the tape J against the projecting arm of the box H''. In order to provide a means for attaching the tape and roller casing to the window-frame without necessitating operations from without, I provide an angle-iron, as shown in Fig. 9, which angle-iron consists of the portions p p', which are provided with suitable perforations for the passage of screws or other securing devices.

From the foregoing it will be apparent that the improvements described when embodied in an awning-structure render the same simple and effective in operation, and enable the adjustment and movements of said structure to be readily controlled and regulated.

It will be obvious that by the construction described the entire brace-rod may be swung out at an angle from the vertical bar G, to support the awning when pulled down its entire length, or the section g'' of said brace-rod may be moved parallel with the bar G, as shown in Fig. 2, while the section g' of said brace-rod occupies a position at right angles to the section g'', to support the awning at half-height. The section g'', as before described, may be secured, if necessary, in its vertical position by moving the hook h upward on the bar G, as seen in Fig. 7.

In Figs. 1 and 2 I have illustrated my invention as applied to an ordinary rectangular window. A represents the frame or casing; B, the main portion of the awning, and B'' the side flaps or wings, which are each composed of two sections or parts, C C', having hooks or eyes c, for securing the flaps against the main portion B of the awning when it is desired to roll up the same or use it as a curtain, as shown in Fig. 6.

In Fig. 1 I have shown the awning extended to its greatest length, one of the side flaps, B'', being represented as secured to the inner side of the main portion B of the awning, so that air may enter through the open space. In Fig. 2 the larger sections C of the side flaps, B'', are secured to the main portion B, said portion being partly raised, to enable the smaller sections c' to form the side portions of the awning and be secured to the window-casing for that purpose.

In Fig. 6 I have shown my improved awning applied to a window or other structure having an arched or rounded top which it is desired to provide with a screen or curtain. I therefore employ a section, C'', which is attached to the awning-roll and has a straight lower end, the upper portion being curved to conform to the shape of the arch, and is provided with transverse brace-rods, as indicated by dotted lines in said Fig. 6. A suitable pulley, c'', is attached to the upper portion of the frame A, and has a cord, c''', passing over the same for raising the section C'', which cord may be led down around guide-pulleys on the side of the frame to the sill of the same, as also indicated by dotted lines, and may be secured by any suitable catch device.

By the arrangement and construction last described the awning-section B and sections folded thereon will serve as a curtain, and can be wound upon the awning-roll after the manner of an ordinary curtain on its roller.

In Figs. 12 and 13 I have represented the construction wherein the rods G' forming the brace-rods are connected together at their upper end by a transverse bar which is adapted to enter the housing when the awning is rolled up, and the said bar f thereby occupies a position above the door F. A wire rod, g''', is attached at its upper end to each corner of said door F, and is secured at its lower end so as to embrace and slide upon the bar G. By this means, when the connection of the rod G' with the said bar G slides downward upon the same, the weight of the door F will force the wire rod g''' down upon the bar G to a limited extent until the said door reaches a pendent position. When the awning is rolled up and the connection of the rod G' again ascends on the bar G, it contacts with the connection of the wire rod g''', and, lifting the said rod, causes it to elevate and close the said door F after the horizontal connecting-rod f of the brace-rods G' have entered the housing.

I claim—

1. The combination, in an awning, of an awning-section attached to a roll journaled in a box or compartment, a hinged section or door arranged in the said box or compartment, a rod or brace attached, respectively, to the said awning and structure, and adapted to ascend as the awning winds up and close the door of said box or receptacle, substantially for the purpose specified.

2. The combination of a roller suitably journaled, a drum located on the end of the same, a tape or other material attached to said drum, so as to wind thereon, a weight depending from said tape, a second tape or other suitable material attached to the roll in a direction reverse to that in which the first-mentioned tape was wound, passing around the roller of the first-mentioned weight, and provided with a second weight and suitable guide-pulleys, substantially as described.

3. The combination, in an awning, of an awning-section attached to a roller suitably

5 journaled, a brace or rod connected, respectively, to the awning and to a fixed portion of the frame, and jointed, substantially as described, so as to brace the awning at different heights to which it may be adjusted, as set forth.

10 4. The combination, in an awning, of a main awning-section provided with side flaps each consisting of independent sections $C C'$ of different sizes, as described, and devices, substantially as described, for retaining said sections in a folded position upon the main section, substantially as set forth.

15 5. The combination, in an awning, of an awning-section attached to a roller suitably journaled, side flaps, B'' , each consisting of independent sections $C C'$, arranged and connected as described, and adapted to be successively folded and retained on the main section as the same is adjusted to different heights, and an adjustable rod adapted to brace said awning at different heights, substantially as set forth.

25 6. The combination, in an awning constructed and operating substantially as described, of a box, H' , provided with flanges y , guide-rollers h'' , and a projecting arm having a guide-roller and pivoted cam-lever, substantially as set forth.

30 7. The combination, in an awning constructed and operating substantially as herein

described, of a box containing the awning-roll and operating devices, and attached to the window or frame by angle-brackets each consisting of the perforated portion $p p'$, as set forth. 35

8. The combination, in an awning, of a guide-bar, G , secured to each side of the window or frame, a jointed brace-rod, G' , consisting of the jointed sections $g' g''$, and pivotally attached to the said guide-bar, and a hook, h , adapted to embrace said guide-bar and engage said brace-rod, substantially as set forth. 40

9. The combination, in an awning, of a housing, a roll journaled therein, an awning proper, adapted to be wound on said roll, a bar secured to each side of the frame of the window or other structure, a brace-rod connected to said bar and to the awning, and a wire rod sliding on said bar and secured to the housing-door, to operate the same by the movement of the said brace rod or rods, substantially as set forth. 50

In testimony whereof I affix my signature in presence of two witnesses. 55

FRANK B. MALLORY.

Witnesses:

E. W. JOHNSON,
JOHN E. BEALL.