(No Model.) 2 Sheets—Sheet 1.

H. W. SCHWECKENDIEK.

AWNING.

No. 363,548. Patented May 24, 1887.

Fig. 3.

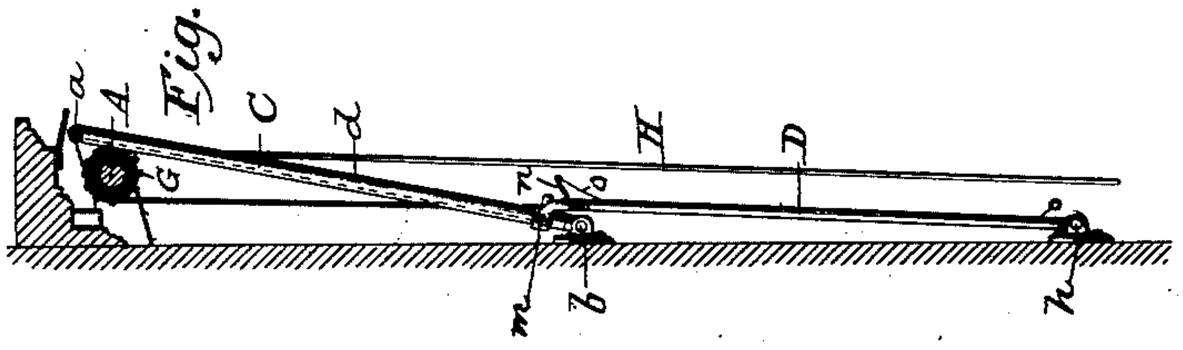


Fig. 2.

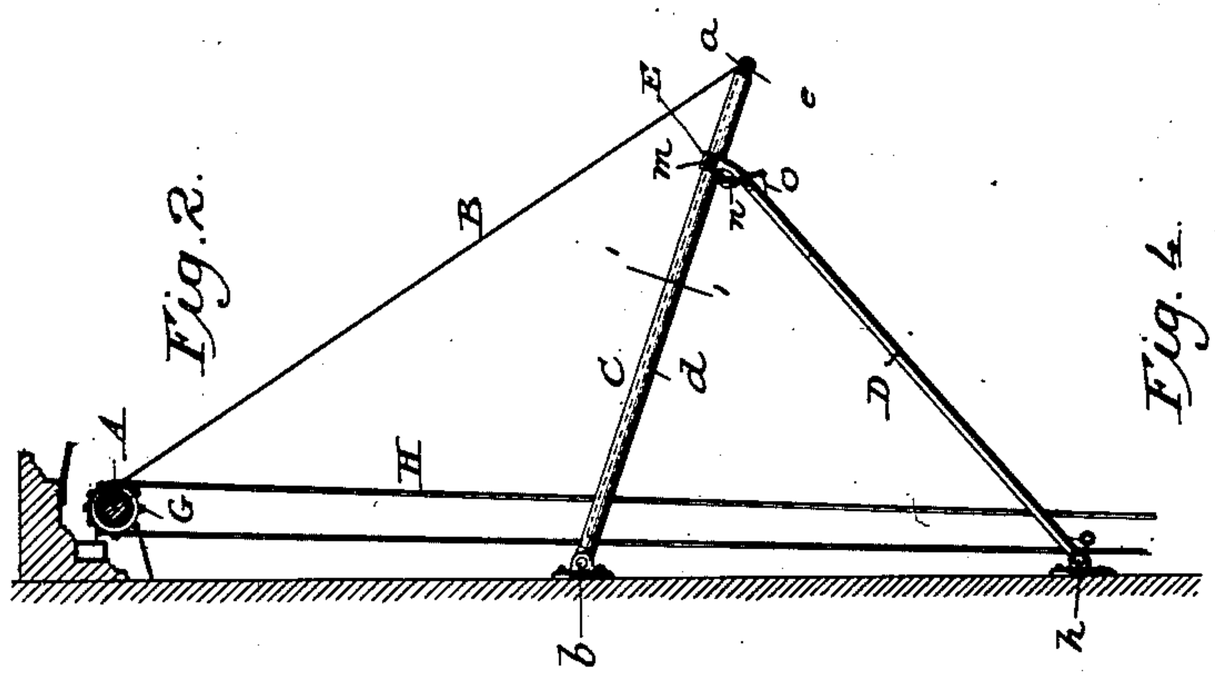


Fig. 5.

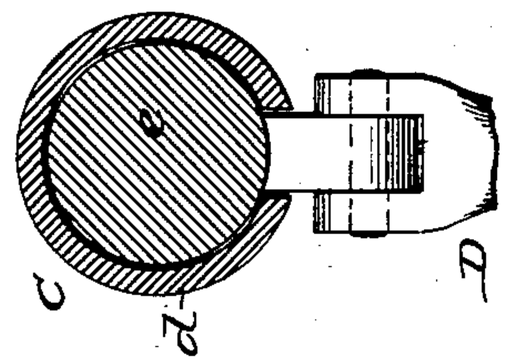


Fig. 4.

ON LINE 1-1

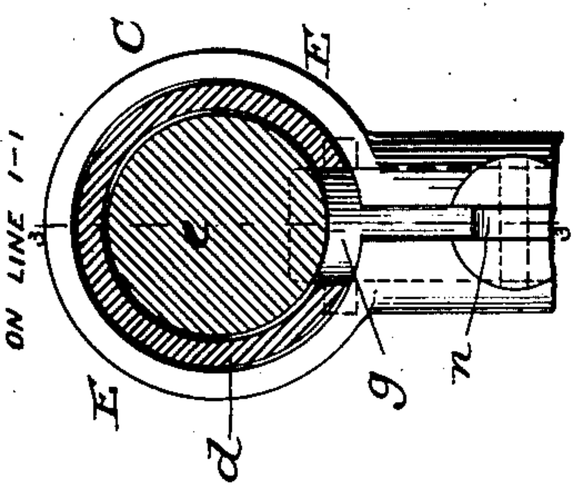


Fig. 10.

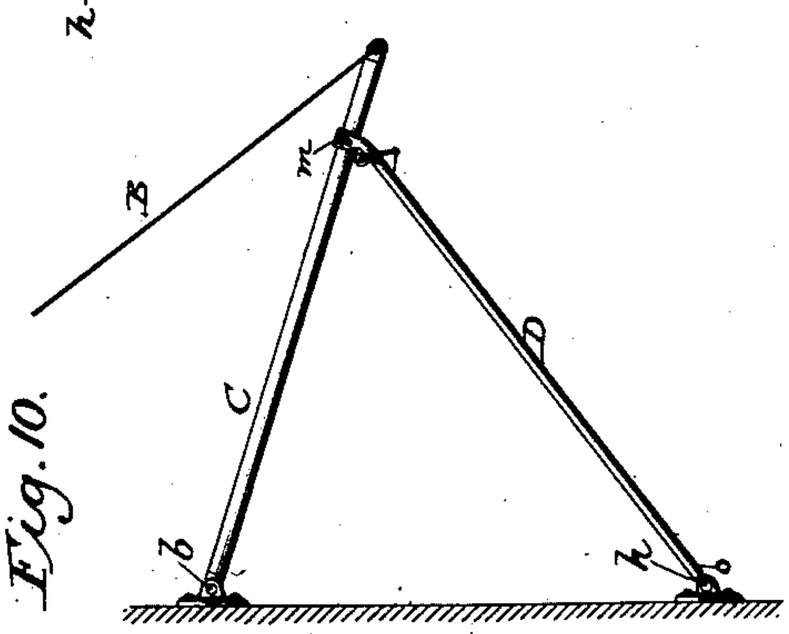


Fig. 1.

Attest.

Sidney P. Hollingsworth

N. R. Kennedy

Inventor:

H. W. Schweckendiek

By his Atty

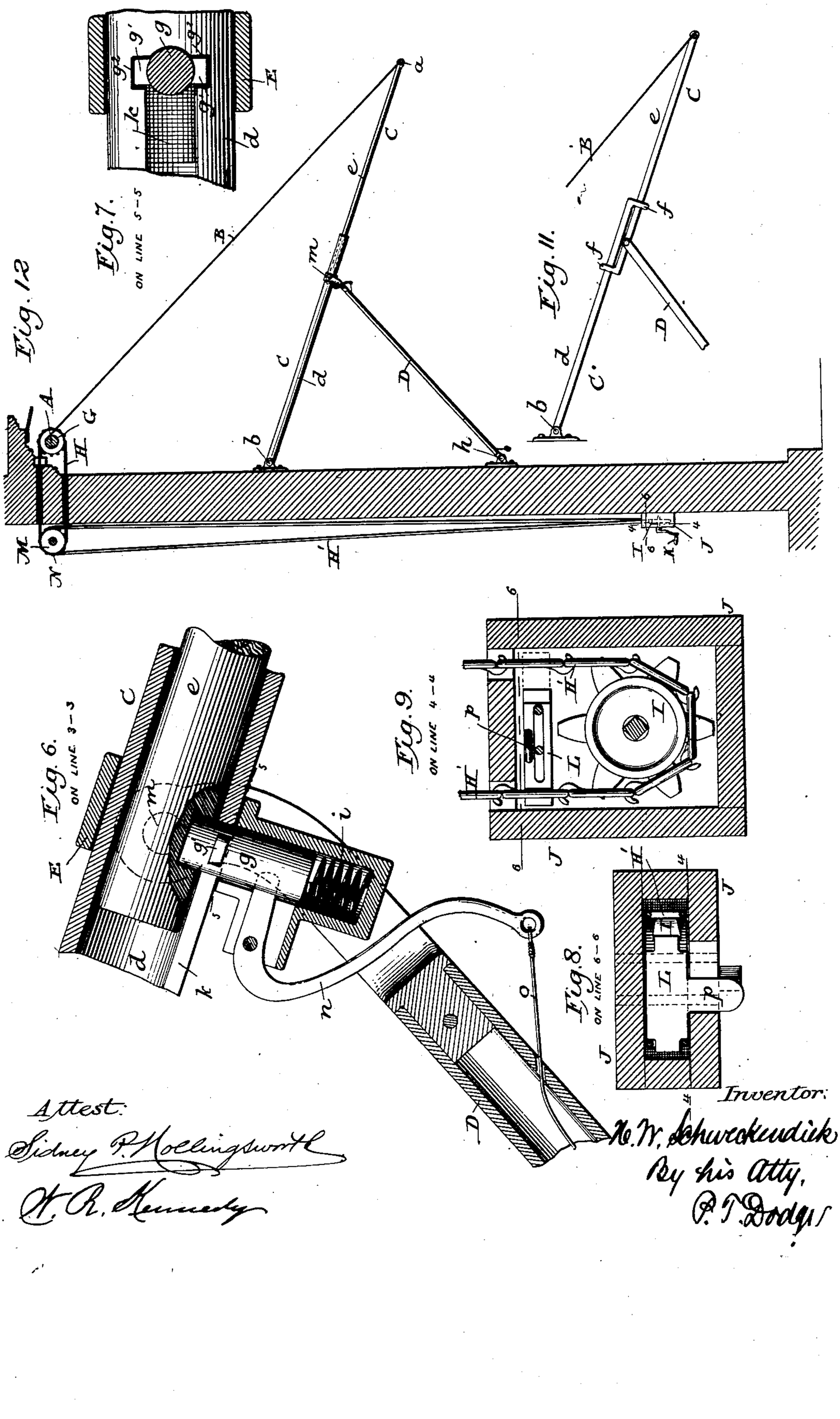
P. T. Dodge

(No Model.) 2 Sheets—Sheet 2.

H. W. SCHWECKENDIEK.

AWNING.

No. 363,548. Patented May 24, 1887.



Attest:
Sidney P. Hollingsworth
H. R. Kennedy

UNITED STATES PATENT OFFICE.

HENRY W. SCHWECKENDIEK, OF BALTIMORE, MARYLAND.

AWNING.

SPECIFICATION forming part of Letters Patent No. 363,548, dated May 24, 1887.

Application filed March 16, 1887. Serial No. 231,167. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. SCHWECKENDIEK, of the city of Baltimore and State of Maryland, have invented certain Improvements in Awnings, of which the following is a specification.

My invention has reference more particularly to that class of store-awnings in which the awning-sheet is attached at its upper edge to a winding-roll and carried at its lower edge by a bar on the outer end of arms jointed to the building to swing vertically.

The aims of the invention are mainly to provide means for automatically locking the awning when extended, so that it may not be lifted by the wind, and to admit of the awning being extended a greater or less distance, as the circumstances require.

In the accompanying drawings, Figures 1, 2, and 3 are sectional elevations of my awning applied to a building, showing the different positions which it assumes. Fig. 4 is a cross-section on the line 1 1, Fig. 2. Fig. 5 is a cross section of the device in modified form. Fig. 6 is a longitudinal section on the line 3 3 of Fig. 4. Fig. 7 is a section on the line 5 5 of Fig. 6. Fig. 8 is a horizontal section on the line 6 6 of Figs. 9 and 12. Fig. 9 is a vertical section on the line 4 4 of Figs. 8 and 12. Figs. 10 and 11 are side elevations showing the awning-frame in modified forms. Fig. 12 is a sectional elevation showing the winding devices in their preferred form.

Referring to Figs. 1, 2, 3, 4, 6, 7, and 12, A represents a horizontal winding-roll, fixed in any suitable support at the front of the building and combined with means of any suitable character to effect its rotation.

B B represent the awning-sheet, attached at its upper edge to the winding-roll and at its lower or outer edge to a horizontal bar, *a*, carried at the outer ends of arms C, which arms are jointed at their inner ends to the building or other fixed support at *b*, so that they may swing vertically. When the sheet is wound upon the roll, the arm C assumes an upright position, and as the sheet is unwound the arm swings downward to or beyond the horizontal position, extending and supporting the edge of the sheet a suitable distance beyond the building, as shown.

For the purpose of holding the arm down, so that the awning may not be lifted by the action of the wind thereunder, I combine with the arm C a brace, D, having one end pivoted to the wall or other support at *h*, below the pivot of the arm C, and the opposite end connected to the arm C in any manner which will admit of its sliding thereon.

I commonly pivot the arm or brace D to a collar, E, which encircles and is arranged to slide freely on the body of arm C, and in this collar I mount, as shown in Fig. 6, a spring-actuated bolt, *g*, having shoulders *g'*, which enter notches g^2 in the arm C, so as to lock the brace to the arm and thus hold the awning securely in its extended position. I also mount in the sleeve a lever, *n*, engaging at one end in the bolt and connected at the opposite end to a cord or wire, *o*, which is extended through the brace D or otherwise to a point near the building, where it may be conveniently grasped by the operator for the purpose of unlocking the bolt, in order that the awning may be folded upward.

When the awning is to extend but a few feet from the building, the arm C is made in one rigid piece from end to end, as shown in Fig. 10; but when it is required to have the awning of great width I prefer to construct the arm C of two parts arranged to slide one in relation to the other, so that when in use the arm may be extended, and that when folded it may be shortened to admit of the parts closing into more compact form. In Figs. 1, 2, 3, 4, and 6 this telescopic or extended arm consists of the tubular portion *d*, hinged to the building, and of the outer portion or rod, *e*, arranged to slide therein. Fig. 1 shows the portion *e* in its projected or extended position, while Figs. 2 and 3 show it in its inner or retracted position.

In order that the parts *e* may be automatically projected as the awning is extended, I commonly provide the tubular portion *d* with a longitudinal slot and extend the locking-bolt *g* upward through this slot into engagement with the sliding member *e*, as shown in Fig. 6. When, therefore, the arm C swings downward, the bolt carried outward by the sliding end of the brace D acts to force the rod *e* outward. When the parts reach their outermost position, the bolt automatically locks

into the part *d*, as before described, to hold them in place.

It will be perceived that the bolts serve the double purpose of locking the part *e* in its extended position and of locking the part C against a rising movement. When it is required to extend the awning a moderate distance beyond the building, the bolt *g* will be unlocked from the rod *e* before the awning is extended, and, as a consequence, the arm *e* will remain in its inner or retracted position, as shown in Fig. 2.

If desired, the brace D may be pivoted rigidly to an ear on the under side of the rod *e*, as shown in Fig. 5; but in such case the awning will always be extended to its full width when brought to an operative position.

The advantage of connecting the brace D to the part *e* in a detachable manner lies in the fact that it enables the awning to be extended a greater or less distance at the will of the attendant.

Instead of constructing the arm C in the telescopic manner before referred to, it may be made of two parts or bars laid side by side and connected by clasps or slides *f*, as shown in Fig. 11.

The winding-roll may be operated, as in Fig. 1, by a sprocket-wheel, G, mounted thereon and connected by a chain, H, to a wheel, I, mounted in a supporting-box on the front of the building, and provided with an operating-crank, K. When the front is of such form as to forbid the direct extension of the chain to the operating-wheel, the construction shown in Fig. 12 may be adopted. In this figure the chain is extended from the pulley G directly through the wall of the building to an internal pulley, M, the shaft of which, mounted in fixed bearings, carries a second pulley, N, from which an endless chain, H′, is extended downward inside the building to the operating-pulley I, which is in all respects identical with that before referred to.

In order to prevent the accidental or mischievous release of the awning, I mount in the box J a sliding bolt, L, adapted to engage the chain at one end and provided with a projection, *p*, or its equivalent, by which it may be moved.

It is to be understood that the essence of my invention resides in connecting the arm C to the brace D by a sliding connection and a locking device, and that the details may be varied within the range of mechanical skill without departing from my invention, the details of the slide and locking device being of minor importance.

Having thus described my invention, what I claim is—

1. In an awning-frame, the extensible arm C, hinged to swing upward and downward, in combination with the brace D, pivoted to a fixed support and to the sliding member of the arm C, substantially as described, whereby the lengthening and shortening of the arm C is effected automatically as it rises and falls.

2. In an awning, the combination of the winding-roll, the awning-sheet attached thereto, the extensible arm C, pivoted at one end to a fixed support and connected at the opposite end to the outer edge of the awning-sheet, and the brace D, pivoted at one end to a fixed support and at the opposite end to the extensible portion of the arm C.

3. In an awning-frame, the extensible arm C, hinged at one end, in combination with the arm D, pivoted at one end and connected at the opposite end to the extensible member of the arm C by a locking device, substantially as shown, adapted to permit its disconnection from said sliding member, substantially as and for the purpose described.

4. In an awning, the tubular slotted arm *d*, hinged at one end, in combination with the rod *e*, arranged to slide therein, the collar E, loosely encircling the tubular arm, its locking-bolt adapted to engage the sliding rod, and the arm D, hinged at one end to a fixed support and jointed at the opposite end to the collar E, substantially as described.

5. In an awning, in combination with the hinged extensible arm C, composed of the members *d e*, the arm D, pivoted at one end to a fixed support and at the opposite end to a slide or collar, E, a locking device for connecting the slide with the member *e*, and a wire or operating device extending through or along the arm D to its lower end, substantially as described.

6. In an awning, in combination with the winding-roll and its pulley, the operating-chain, the pulley I, to operate said chain, its supporting case or frame, and the movable bolt mounted in said frame and adapted to engage the chain.

7. In an awning, a vertical swinging arm jointed at its inner end to the building or other support and connected at its outer end to the awning, in combination with the brace pivoted at one end to a fixed support and having a sliding connection at the opposite end with the arm, and a catch or locking device adapted to fasten the brace to the arm when the two are extended.

8. The hinged extensible arm *d e* and the hinged brace having a sliding connection with the part *d*, in combination with the locking device serving to connect the brace with both the parts *d* and *e*, whereby the brace is caused to hold the arm in its extended condition, and also to hold the arm down whether extended or not.

In testimony whereof I hereunto set my hand, this 10th day of March, 1887, in the presence of two attesting witnesses.

HENRY W. SCHWECKENDIEK.

Witnesses:

S. P. HOLLINGSWORTH,

ANDREW PARKER.