C. RICHARDS.

AWNING.

APPLICATION FILED AUG. 26, 1911.

1,039,593.

Patented Sept. 24, 1912.

3 SHEETS-SHEET 1.

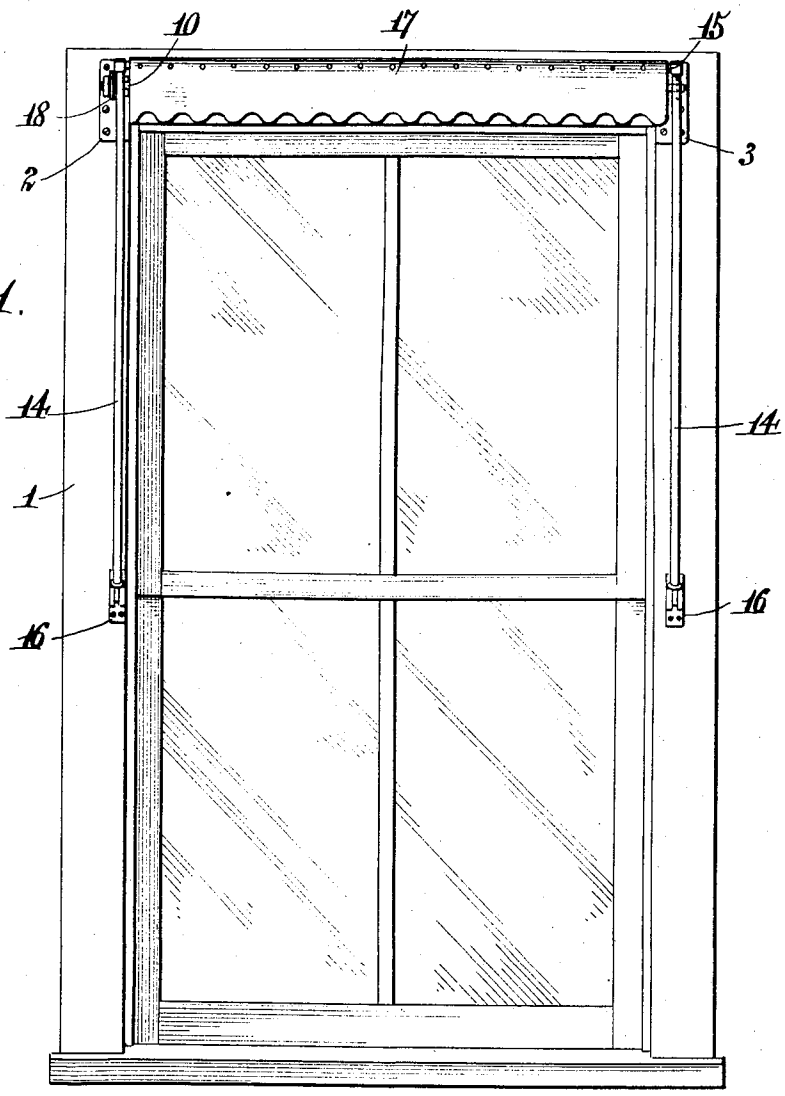

Fig. 1.

Witnesses:

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3 SHEETS—SHEET 2.

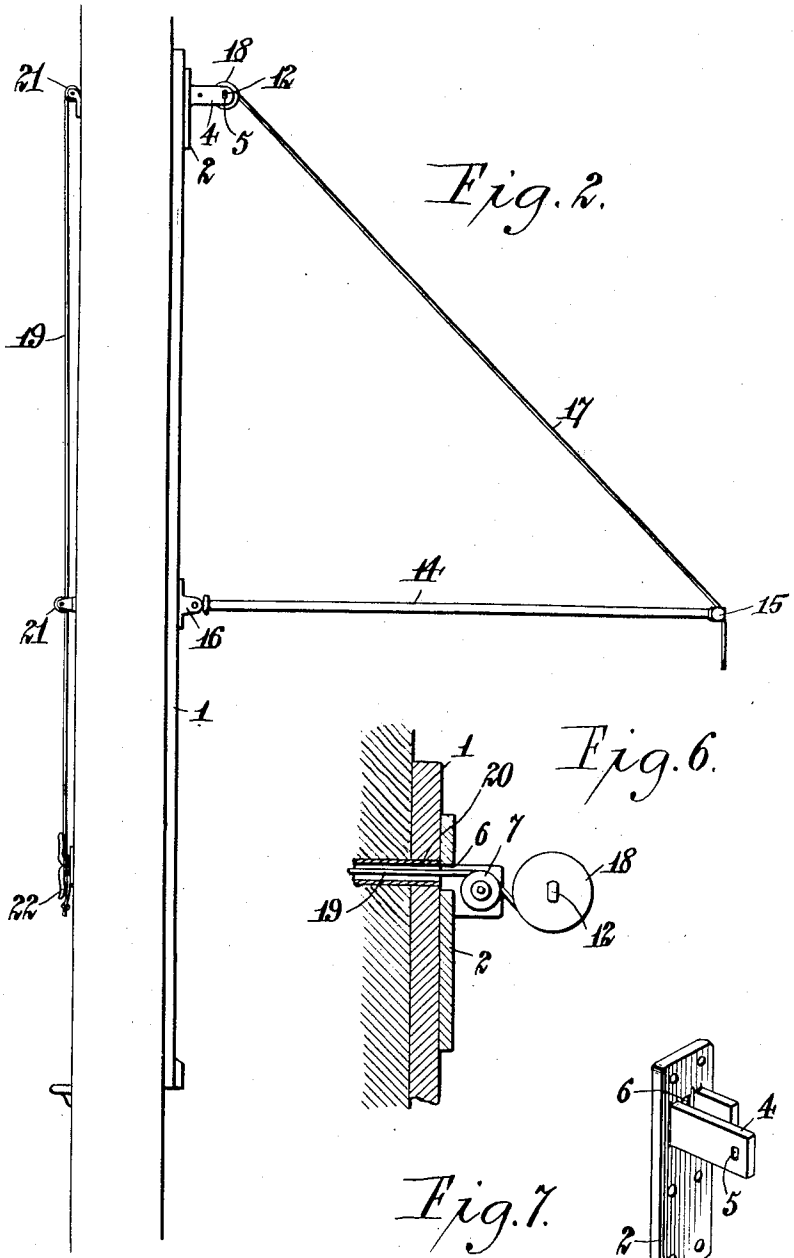

Fig. 2.

Fig. 6.

Fig. 7.

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3 SHEETS—SHEET 3.

Fig. 3.

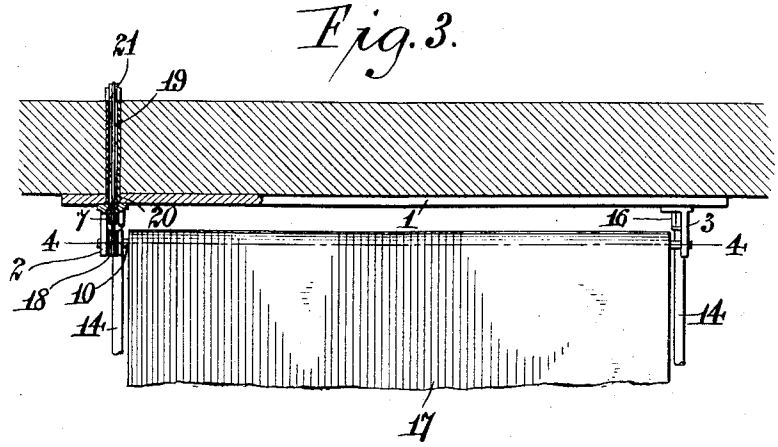


Fig. 4.

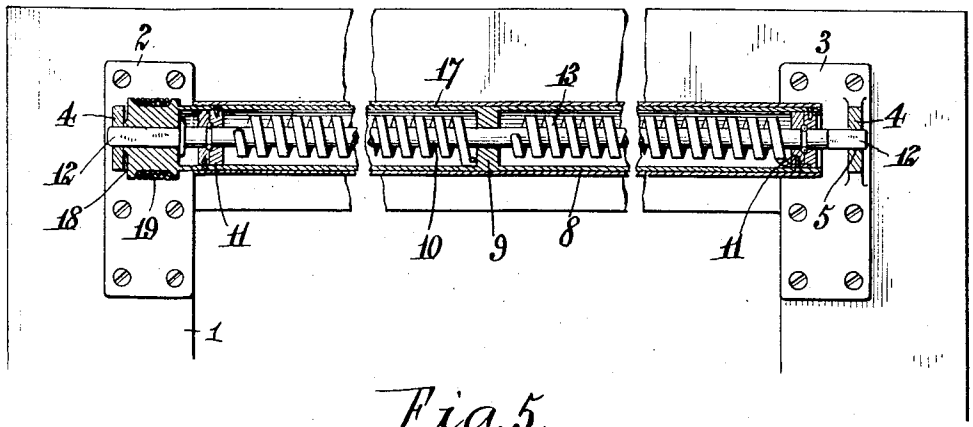
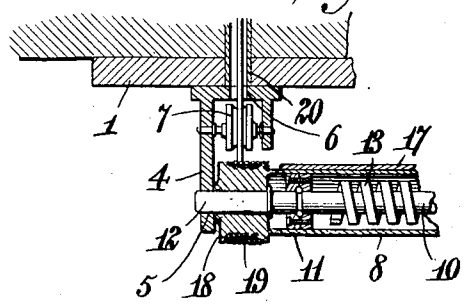


Fig. 5.



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UNITED STATES PATENT OFFICE.

CORYDON RICHARDS, OF HARVARD, ILLINOIS.

AWNING.

1,039,593. Specification of Letters Patent. Patented Sept. 24, 1912.

Application filed August 26, 1911. Serial No. 646,141.

To all whom it may concern:

Be it known that I, CORYDON RICHARDS, a citizen of the United States, residing at Harvard, in the county of McHenry and State of Illinois, have invented new and useful Improvements in Awnings, of which the following is a specification.

This invention relates to improvements in awnings, the object of the invention being to provide a simple and inexpensive type of awning having a spring-motor-actuated roller adapted to rewind the canopy during the operation of raising the awning frame, and also having means whereby the spring roller may be rotated from the interior of the building to lower the frame and unwind the canopy and at the same time tension the spring-motor for the subsequent raising and rewinding operations.

The invention consists in the features of construction, combination and arrangement of parts, hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:—

Figure 1 is a front elevation showing the awning raised. Fig 2 is a side elevation showing the awning lowered. Fig. 3 is a plan view showing the frame of the window partly in section. Fig. 4 is a vertical section on line 4—4 of Fig. 3. Fig. 5 is a horizontal section through one end of the roller, the operating sheave and the adjacent supporting bracket. Figs. 6 and 7 are detail views of the brackets.

Referring to the drawings, 1 designates the support to which the awning is applied, which may be the frame of a window. Fixedly secured to the upper end of the window frame and adjacent the opposite sides thereof are brackets 2 and 3, each having an outwardly extending arm 4 provided with a non-circular opening 5, the bracket 2 being further provided with a longitudinal slot 6 and a guide pulley or sheave 7.

Supported by the brackets 2 and 3 is a roller 8, comprising a hollow cylindrical body of less length than the distance between said brackets. Fixedly secured within the roller at the center thereof is a ring 9, and extending through the roller and also through the ring is a shaft 10. The opposite ends of the shaft extend through circular heads or bearing members 11 secured within the ends of the rollers, as shown in Figs. 4 and 5, and projecting outwardly from the heads 11 are non-circular studs or projections 12 engaging the non-circular openings 5 in the brackets and fixing the shaft thereto. Encircling the shaft 10 are coiled springs 13 which are fixed at their outer ends to the roller 8 and at their inner ends to the shaft, which springs are adapted to be tensioned to operate as a motor to rewind the roller after the latter has been turned by the outward movement of the awning and canopy frame.

The canopy frame is substantially U-shaped and comprises side arms 14 connected at their outer ends by a cross piece 15, said side arms being pivotally connected with brackets 16 at the sides of the window frame, whereby the awning frame is adapted to swing upward to the position shown in Fig. 1 and downward to the position shown in Figs. 2 and 4. The awning canopy 17 is fixed at one end to the roller 8 and at its opposite end to the cross piece 15 of the awning frame, and is of sufficient length to permit the awning frame to swing to the described positions.

Secured to the end of the roller adjacent the bracket 2 is an operating sheave 18 to which is fixed one end of an operating cord 19, which is wound around said sheave and thence extends inwardly to the interior of the building over the pulley 7 and through the slot 6 in the bracket 2 and an opening or passage 20 in the window frame. The inner end of this cord hangs pendent and passes downward over a guide pulley 21. A suitable holder 22 is provided with which the cord may be engaged to hold it from movement when adjusted to turn the roller in the direction to permit the awning to unwind, the awning frame to be lowered and the spring motor to be tensioned for the rewinding operation.

The motor spring is of sufficient strength to raise or elevate the frame and simultaneously rewind the canopy upon the roller, and to maintain the awning as a whole in raised position. It will be observed that the operating cord 19 is so wound upon the operating sheave 18, that when drawn downward the cord will, in unwinding from said sheave, turn the roller outwardly and forwardly, thus permitting the awning frame to swing downward by gravity and the awning to unwind, while at the same time tensioning the spring motor for the subsequent raising and rewinding operation. By engaging the free end of the cord

19 with the holder 22 when the awning is lowered, the awning will be held in such position against the action of the motor spring. Upon releasing the cord from the holder 22, the motor spring will react and wind up the canopy and at the same time elevate the frame to its raised position.

From the foregoing description, taken in connection with the drawings, the construction and mode of operation of my improved awning will be readily understood, and it will be seen that the invention provides a simple construction of awning which may be readily raised and lowered from the interior of the building, and in which, upon the simple release of a controlling element, the awning frame will be automatically raised and the awning canopy wound up.

Having thus described my invention, what I claim as new is:

1. The combination with a support having an opening extending between its outer and inner sides, of supporting brackets on the outer side of said support, one of said brackets having a slot in line with said opening, guide pulleys upon the slotted bracket and inner side of the support, an awning frame pivotally mounted upon the outer side of the support, a stationary shaft mounted upon the supporting brackets, a spring-actuated roller mounted on said shaft, a canopy attached to the awning frame and roller, the motor spring of the roller being of sufficient strength to raise the frame and rewind the canopy, an operating sheave attached to the end of the roller adjacent the slotted bracket, a cord extending through said opening in the support and over said guide pulleys and wound upon the sheave, whereby the roller may be turned to unwind the canopy and tension the spring, and a holder on the inner side of the support with which said cord is adapted to be engaged to hold the awning in lowered position against the action of the motor spring.

2. The combination with a support having an opening extending between its outer and inner sides, of supporting brackets on the outer side of said support, each of said brackets being provided with outwardly extending arms having non-circular openings, and one of said brackets having a shorter arm and a slot between its arms and in line with said openings, guide pulleys upon the inner side of the support and the slotted bracket, the last-named pulley being journaled between the arms of said bracket, an awning frame pivotally mounted upon the outer side of the support, a stationary shaft having non-circular ends fitted in the non-circular openings of the brackets, a roller mounted upon said shaft between the brackets and provided with end and intermediate apertured heads turning on the shaft, springs inclosing the ends of the shaft within the roller and terminally fixed to the shaft and roller, said springs forming a motor to raise the frame and rewind the canopy, an operating sheave attached to the end of the roller adjacent the slotted brackets, a cord extending through said opening in the support, over said guide pulleys and through the slot in the bracket and wound upon the sheave, whereby the roller may be turned to unwind the canopy and tension the spring, and a holder on the inner side of the support with which said cord is adapted to be engaged to hold the awning in lowered position against the action of the motor springs.

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

CORYDON RICHARDS.

Witnesses:
F. J. SHEAHAN,
B. F. MANLEY.