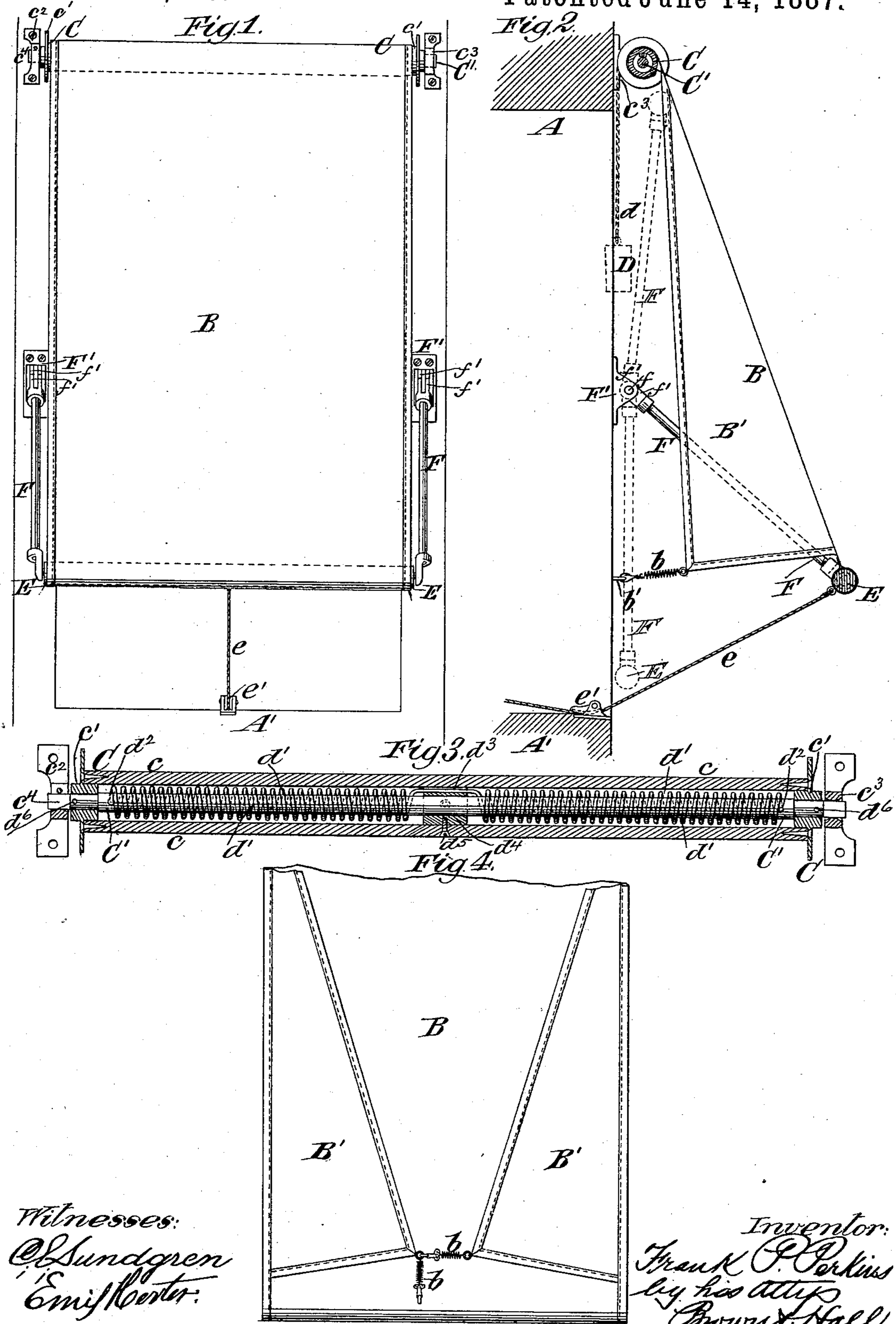


(No Model.)

F. P. PERKINS.
ROLLER AWNING FOR WINDOWS.

No. 364,770.

Patented June 14, 1887.



Witnesses:
O. Sundgren
Emil Koetter.

Inventor:
Frank P. Perkins
by his atty
Brown & Hall

UNITED STATES PATENT OFFICE.

FRANK P. PERKINS, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE HALF
TO WILLIAM LARDER, OF SAME PLACE.

ROLLER-AWNING FOR WINDOWS.

SPECIFICATION forming part of Letters Patent No. 364,770, dated June 14, 1887.

Application filed February 26, 1887. Serial No. 223,919. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. PERKINS, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Roller-Awnings for Windows; of which the following is a specification.

My invention relates to awnings which are secured and rolled upon a roller to be attached at the top of the window-casing, and which are connected at the free end to a stretcher-bar supported by hinged or pivoted arms extending from the casing.

An important object of my invention is to provide for the extension of the awning downward at an inclination to the plane of the window, or so as to cover the entire window and serve as a substantially vertical shade in front thereof.

The invention will be hereinafter more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a front view of a window-casing having applied thereto an awning embodying my invention, the awning being represented as extended downward at a slight inclination, so as to cover nearly the entire window. Fig. 2 is a side view and vertical section of the window-casing, showing the awning in position, corresponding to Fig. 1. Fig. 3 is a sectional view of a spring-actuated roller which I may employ; and Fig. 4 represents the inner side of the awning, showing side flaps, which are folded upon the inner side thereof preparatory to rolling up the awning.

Similar letters of reference designate corresponding parts in all the figures.

A A' designate the upper and lower portions of a window-casing, and B the awning, which may be made of any of the fabrics ordinarily used for awnings. At the upper end this awning B has secured to it a power-roller, C, which is actuated by a weight or by a spring, to automatically turn it in a direction to wind up the awning. Ordinarily the roller C may have a spring inclosed within it for turning it automatically; but, if desired, a weight might be employed. In Fig. 2 I have shown in dotted lines a weight, D, suspended from a cord, d, which is wound upon the end portion of the

roller and which may serve in lieu of a spring to actuate the roller.

At its free end the awning B is attached to a stretcher-bar, E, which is supported by hinged or pivoted arms F. I have represented the arms F as pivoted at f to brackets F', secured by screws or otherwise to the front of the window-casing, and when thus arranged the arms may be swung upward or downward into either of the positions represented by dotted lines in Fig. 2, or at any inclination upward or downward from their pivotal points f. I prefer to form the brackets F' and the end portions of the arms F with multiple leaves f', as is shown in Fig. 1, so as to impart strength to the pivotal connection of the arms F with the window-casing, to sustain and brace the arms against lateral strain, which will be produced by wind blowing against the side of the awning. The stretcher-bar E, I prefer to make in the form of a roller journaled in the ends of the arms F, so that as the arms swing upward or downward to roll up or extend the awning the bar may be turned in the arms and avoid the rolling up of the awning on the bar.

At the sides of the awning are flaps or wings B', which, when the awning is extended, may be adjusted to project at right angles rearward from the opposite edges of the awning, and which, when the awning is to be rolled up, may be folded inward against the inner side thereof, as represented in Fig. 4. Each side flap, B', is provided with a connection, b, whereby it may be secured to the window-casing, so as to hold it in proper position, and this connection may be formed with a snap-hook for engaging an eye, b', on the casing. The connections b, preferably, are elastic or extensible, as by embodying in them spiral springs, so that they will yield slightly when the wind acts upon the side flaps, B', and will not be broken, as a non-extensible and inelastic connection might be.

e designates a cord, which may be attached to the stretcher-roller E, and which passes under a holdfast on the bottom of the window-casing, and this holdfast may be made in the form of an eccentric-clamp, e', whereby the

cord or connection *e* may be clamped and held in any desired position. When it is desired to draw down the awning, a pull is exerted upon the cord *e*, and when the awning is to be raised it is only necessary to release the cord *e* and pay it out, the power-roller C turning automatically and rolling the awning up upon it and drawing the arms F into the position shown by dotted lines in Fig. 2, where they project upward from their pivoted points *f*. The roller C, which I have shown in Fig. 3, comprises a spindle, C', and the roller-body *c*, which is hollow throughout its length and provided with heads *c'*, which are journaled on the spindle C'. The spindle C' is supported in suitable brackets or bearings, *c²*, *c³*, the former of which is slotted to permit the introduction of the roller downward into it, and the end *c⁴* of the spindle is flattened, or made otherwise, to engage with the bracket *c²*, so as to engage and hold the spindle against turning. I have shown within the hollow roller-body *c* two springs, *d'*, which are coiled in opposite directions, and which are attached at opposite ends to the roller-body *c* and the spindle C'. As here represented, the outer ends of the springs *d'* are secured at *d²* to the spindle C', and the inner and adjacent ends of the spring are secured or held within a notch, *d³*, in a block, *d⁴*, which is fitted in the roller-body and secured by a screw, *d⁵*, or otherwise, rigidly to the body. In this example of my invention the two springs *d'* are made from one piece of wire and the offset portion of wire between the springs simply rests in the notch *d³* in the block *d⁴*, and is by the block secured to the roller-body. I have also represented the coincident holes *d⁶* in the spindle and the heads *c'* of the roller-body *c*, through which a pin may be inserted after the springs are wound up by turning the roller-body relatively to the spindle in order to hold the springs under tension until the roller can be placed in its bearings. Although I consider this roller very desirable for the purpose, I may employ a spring-roller of any ordinary character, or, indeed, I may employ a weighted roller, as before mentioned.

The roller E journaled in the arms F is more advantageous than a bar rigidly connected with the arms would be, because the awning will not be rolled on the roller, as it would on the bar fixed to the arms when the arms are swung upward and downward.

I am aware that side flaps, B', are not new in an awning; but it is absolutely new to provide for them elastic connections, so that they will yield slightly to any gusts of wind and will not be liable to be torn loose. I am also aware that a curtain-roller having double spiral springs wound in opposite directions is not new, and do not claim the same, broadly, as of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a power-roller for attachment to the upper portion of a window-

casing and an awning rolled thereon, of arms and attachments for pivotally connecting them with the casing, and a stretcher-roller, to which the free end of the awning is attached, and which is journaled to turn freely in the outer ends of said arms, as distinguished from a fixed rod connecting said arms, substantially as herein described.

2. The combination, with a power-roller for attachment to the upper portion of a window-casing and an awning rolled thereon, of the arms F, supporting at their outer ends a stretcher bar or roller, to which the free end of the awning is attached, and the brackets F', to which the inner ends of the arms are pivoted, the arms and brackets having multiple leaves *f'*, through which the pivot-pins extend and which serve to sustain the arms against lateral strain by the wind, substantially as herein described.

3. The combination, with the power-roller C and its attached awning, of the pivoted arms F and a stretcher bar or roller supported by the outer ends of the arms, and to which the free end of the awning is attached, and the side flaps, B', and elastic connections for securing said flaps to the casing, substantially as herein described.

4. The combination, with an awning or shade, of a spring-roller therefor, consisting of a spindle, a hollow roller-body, the notched block *d⁴*, fixed in the body, and the springs *d'*, coiled in opposite directions, connected at their outer ends with the spindle and having their inner ends lying in a notch in said block, whereby the inner ends of the springs are connected with the roller-body, substantially as herein described.

5. The combination, with a roller for attachment to the upper portion of a window-casing and an awning secured at one end thereto and of a length sufficient to substantially cover a window when drawn vertically in front thereof, of a stretcher bar or roller to which the free end of the awning is secured, and arms supporting the stretcher bar or roller, and having attachments for pivotally connecting them with the casing, and of a length about half the length of the awning, substantially as herein described.

6. The combination, with a window-casing and a spring actuated power-roller secured at the upper portion of the casing and having an awning rolled upon it, of arms carrying at their outer ends a stretcher bar or roller to which the free end of the awning is secured, and which are pivoted to the casing at about midway in its height, so as to swing downward and upward into approximately vertical position, the awning being of sufficient length to permit the arms to be swung downward into approximately vertical position, substantially as herein described.

FRANK P. PERKINS.

Witnesses:

FREDK. HAYNES,
HENRY J. MCBRIDE.