

No. 763,853.

PATENTED JUNE 28, 1904.

F. O. CARLSON.
WINDOW PROTECTOR.
APPLICATION FILED OCT. 9, 1903.

NO MODEL.

UNITED STATES PATENT OFFICE.

FRANK O. CARLSON, OF VALLEY CITY, NORTH DAKOTA.

WINDOW-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 763,853, dated June 28, 1904.

Application filed October 9, 1903. Serial No. 176,441. (No model.)

To all whom it may concern:

Be it known that I, FRANK O. CARLSON, a citizen of the United States of America, residing at Valley City, in the county of Barnes and State of North Dakota, have invented certain new and useful Improvements in Window-Protectors, of which the following is a specification.

This invention relates to shutters, and particularly to that class thereunder known as "storm-shutters."

An object of the invention is to produce a protector for windows and to shield said windows against the action of rain, hail, snow, and the like, and in the provision of novel means for manipulating the said shutter and for retaining it supported in a collapsed position.

Furthermore, an object of the invention is to provide a novel form of guide and slide, whereby the parts comprising the shade are retained in alinement when the said shutter is in operative position.

Furthermore, an object of the invention is to support the shutter, whereby it is readily accessible from the window, without obstructing in any way the window-opening.

Furthermore, an object of the invention is to produce a shutter of the character mentioned which will possess advantages in points of simplicity, efficiency, and durability, proving at the same time inexpensive to produce and maintain.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 is a view and elevation from the outside, showing a window with the shutter applied and partially extended. Fig. 2 is a perspective view of a window-frame with the invention applied. Fig. 3 is an enlarged detail view of a portion of a frame, showing parts

of the invention applied. Fig. 4 is a sectional view through the guide or track with the co-acting slide in plan. Fig. 5 is a detail view of the lower end of a guide.

In the drawings, 1 indicates a window-frame having any suitable opening, such as 2, for the reception of the cords 3 and 4, by which the shutter is manipulated. Pulleys 5, of any ordinary construction, are mounted at convenient positions and the cords are run thereover, it being understood that it is desirable to have the pulleys so positioned as to prevent the cords from contacting with the frame in order that the condition of the cords may be unimpaired. Guides 6 are secured to the window-frame on each side, and they comprise approximately L-shaped housings formed from a metallic plate bent to the shape shown in Fig. 4.

The shutter proper comprises a series of strips 7 of metal, though I do not wish to be limited in this respect to the material. The intermediate strips 7 between the top strip 8 and the bottom strip are connected by hooks or loops 9, projecting from the edges of the said strips. The hooks or loops are secured to the edges of the strips in such a way as to permit independent movement of each strip, in order that the said strips may be nested one on the other and in a flat position in the brackets 10, which are secured to the window-sill on its outer surface. The brackets 10 comprise a base 11, which is adapted to lie longitudinally of the window-sill and be secured thereto by means of screws or other fastenings passed through the holes 12. The horizontal member 13 of the bracket extends outwardly at a right angle to the base and the end 14 is bent up at a right angle to the horizontal portion, this construction being well disclosed in Figs. 1 and 2. The upper strip 8 is provided with slides 15, which coact with and engage the guide 6, each slide being approximately C shape and formed of a single piece of metal bent as shown in Fig. 4. The slide embraces the guide, which is made thicker at the point A to prevent the slide from passing below the end of said guide. The cords 3 and 4 have their outer ends attached to loops

or staples 16 in the upper edge of the upper strip 8, and as the intermediate strips 7 are connected in the manner shown it follows that as the cord is pulled from the inside the
5 top strip 8 will be elevated and that the intermediate strips 7 will be successively elevated by reason of the connection described. After the shutter is elevated or partially elevated and the cord is released the strips comprising the
10 shutter will fold one on the other and be nested in the brackets, as fully illustrated in Fig. 2.

The construction, operation, and advantages will, it is thought, be understood from the foregoing description, it being noted that various changes may be made in the proportions
15 and details of construction for successfully carrying the invention into practice without departing from its scope.

Having fully described the invention, what

I claim as new, and desire to secure by Letters 20 Patent, is—

In a window-protector a series of strips linked together to permit their lying one upon the other, brackets for embracing the strips in their folded position, L-shaped guides se- 25 cured to the window-frame, C-shaped slides secured to one of the strips and embracing the guides, and flexible connections which run over suitable pulleys and are connected to the top strip, the lower ends of said guides being 30 provided with means for arresting the slides.

In testimony whereof I affix my signature, in the presence of two witnesses, this 31st day of August, 1903.

FRANK O. CARLSON.

Witnesses:

ALFRED ZUGER,
A. P. PAULSON.