

(No Model.)

J. T. & S. W. MILLER.

WINDOW SHUTTER.

No. 395,577.

Patented Jan. 1, 1889.

Fig. 1.

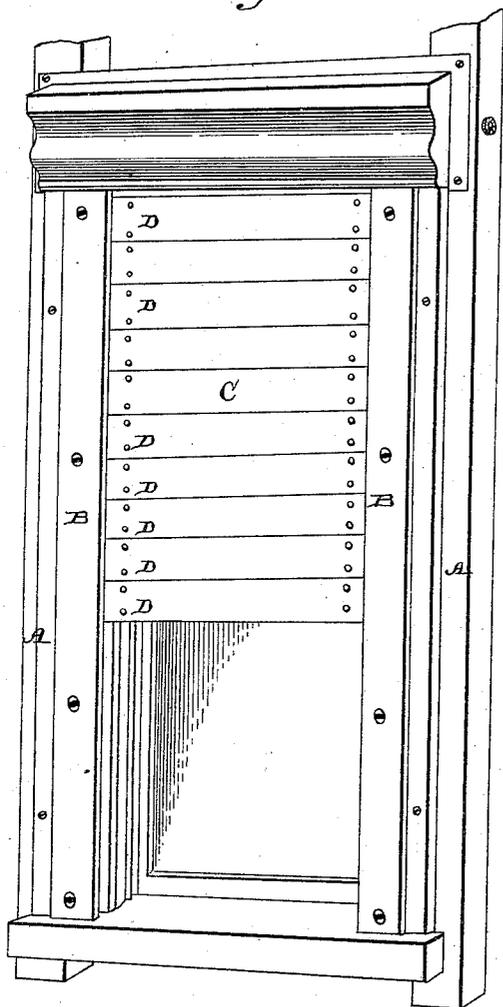


Fig. 3.

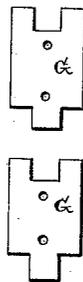
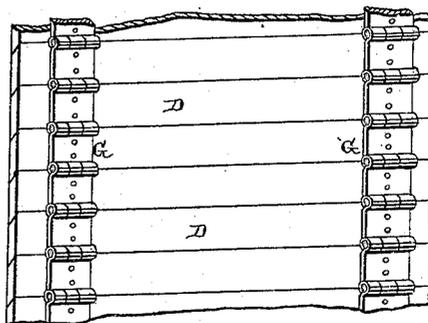


Fig. 4.

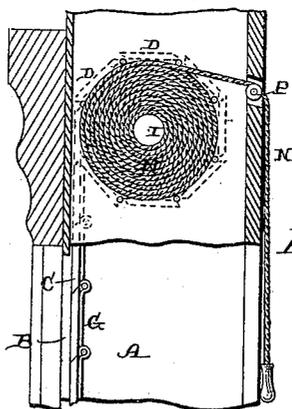


Fig. 2.

Witnesses:

*Wm. Palmer
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UNITED STATES PATENT OFFICE.

JOHN T. MILLER AND SOLOMON W. MILLER, OF THAYER, KANSAS.

WINDOW-SHUTTER.

SPECIFICATION forming part of Letters Patent No. 395,577, dated January 1, 1889.

Application filed June 16, 1888. Serial No. 277,361. (No model.)

To all whom it may concern:

Be it known that we, JOHN T. MILLER and SOLOMON W. MILLER, both of the town of Thayer, county of Neosho, and State of Kansas, have jointly invented a new and useful Improvement in Shutters, of which the following is a specification.

Our invention relates to an improvement in window-shutters, and it is intended as an improvement upon Patent No. 380,914, granted April 10, 1888, to John T. Miller; and it consists in the construction, combination, and arrangement of parts hereinafter more fully described, and pointed out in the claim.

The objects of our invention are to provide a shutter composed of a series of horizontal slats of iron or wood, which have their edges beveled so as to make them water and wind proof and prevent access to the hinges from outside, and to secure them together by a series of hinges fastened to their inner sides, and which form continuous flexible metal strips, and to provide a shaft upon which the shutter is wound by pulling a cord that is secured to it.

Figure 1 is a perspective of a window with our invention applied thereto. Fig. 2 is a vertical section of the upper portion of the same. Fig. 3 is a detached perspective of a portion of the shutter, taken from the inside. Fig. 4 is a detached view of the blanks from which the hinges are formed.

A represents an ordinary window-frame, to the sides of which are secured the vertical iron or wooden strips B, between which and the window-sash the flexible shutter C slides. These strips B are preferably secured to the window-frame by means of screws, as shown, in order to allow them to be readily removed to allow access to the shutter and to permit it to be removed.

The shutter C consists of the horizontal slats D, which are made of either iron or wood, as may be desired. As shown, these slats are beveled, so as to cause their meeting edges to lap, whereby a wind, water, and burg-

lar proof shutter is produced. These slats D, of which the shutter is composed, are secured together by means of the hinges G, which are of a length equal to the width of the slats in order to bring their pivots at the inside meeting-point of the beveled edges of the slats, whereby they are adapted to be wound upon the shaft I in the least possible space. This shaft I has its ends journaled in the window-frame at its top, or just above the window within the walls of the building, as convenience may dictate. Secured to one end of the shaft I is the operating cord or wire N, which passes outward from the shaft over the guiding-pulley P, journaled in the inside wall of the window-frame, as shown. The cord and shutter are wound around the shaft I in opposite directions, so that when the cord is pulled downward the shutter is wound around the shaft, and vice versa.

It will be seen from the above that by having the edges of the slats beveled and the hinges to form a continuous strip a very strong and tight shutter is produced, and that access to the hinges cannot be had from the outside of the building by burglars, thus making a thoroughly wind, water, and burglar proof shutter.

Having thus described our invention, we claim—

In a window-shutter, the combination of the frame, the shaft I, the shutter C, composed of slats having their meeting edges beveled and overlapping the hinges, which are of a length equal to the width of the slats and secured thereto upon their inner sides at opposite ends thereof, the operating-cord, and the pulley P, the shutter and cord being secured to the shaft and wound thereon in opposite directions, all combined to operate substantially in the manner described.

JOHN T. MILLER.
SOLOMON W. MILLER.

Witnesses:
WM. PALMER,
E. W. SMITH.