No. 686,981. Patented Nov. 19, 1901.

C. A. LONG.

WINDOW SCREEN.

(Application filed Feb. 25, 1901.)

(No Model.)

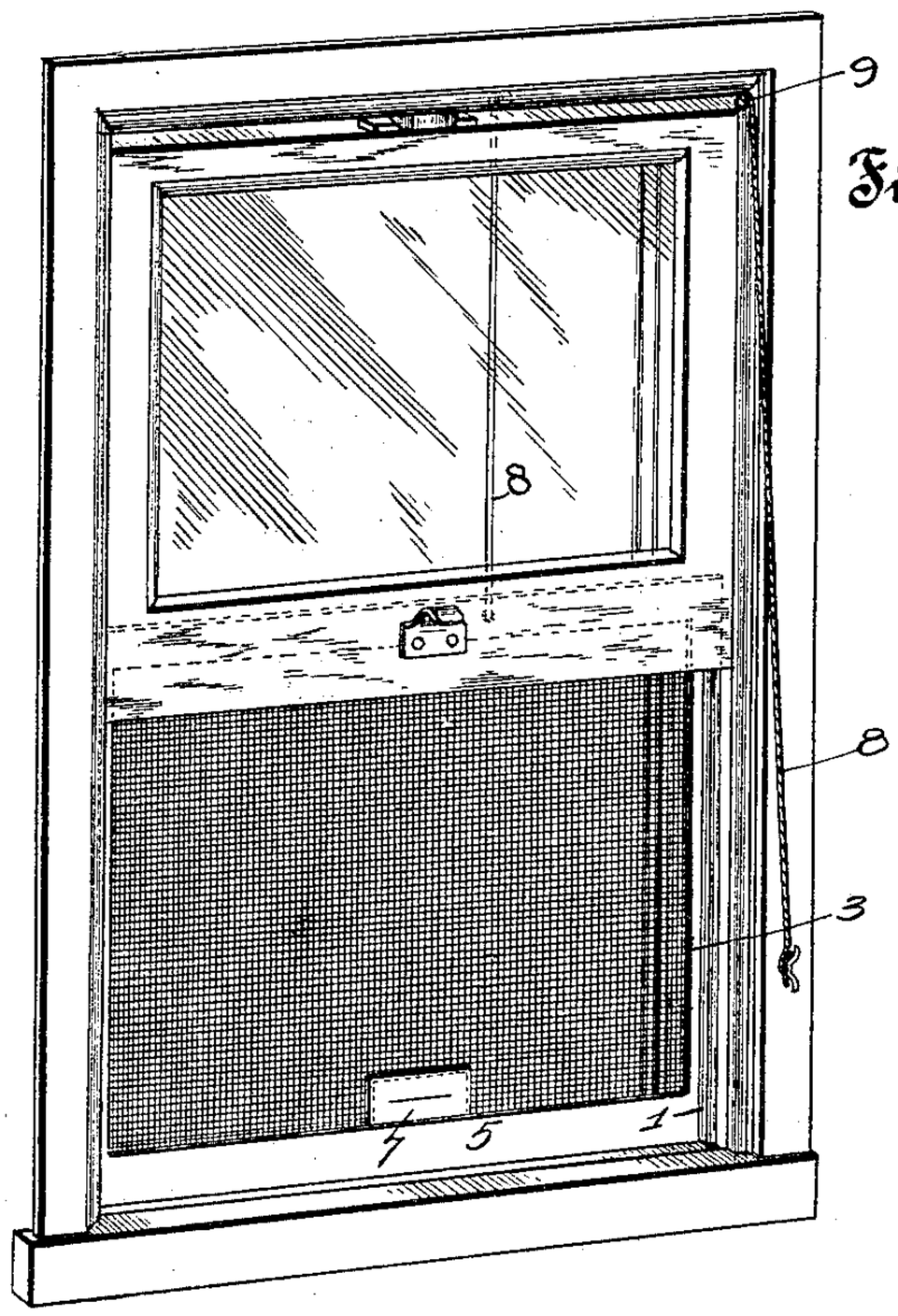

Fig. 1.

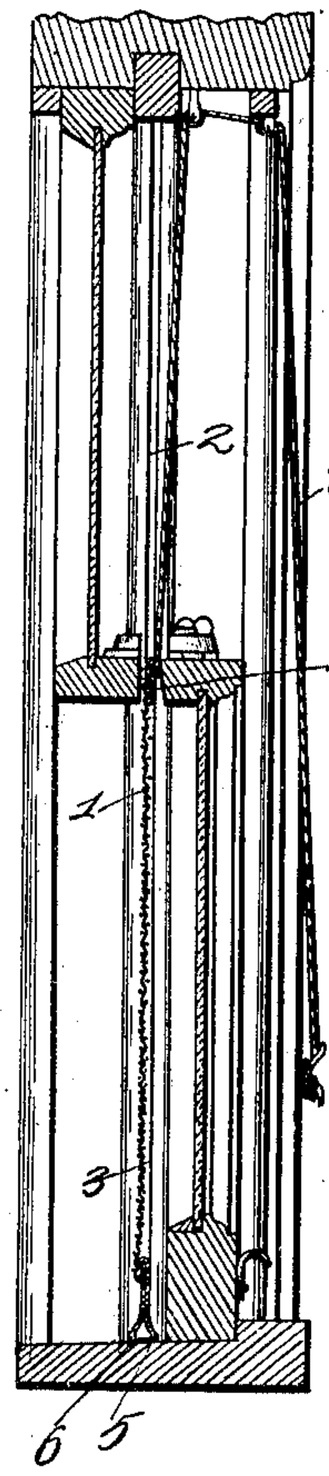

Fig. 2.

Fig. 4.

Fig. 3.

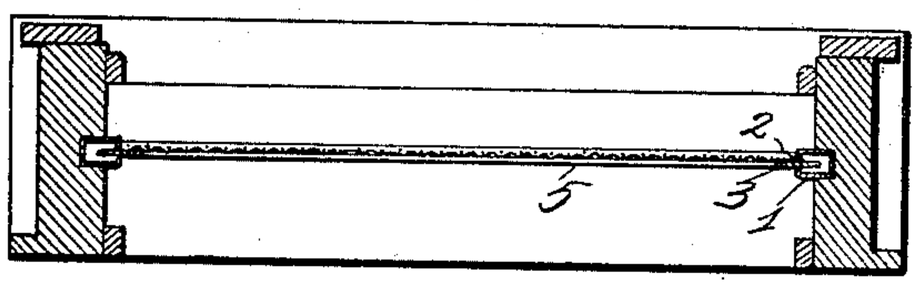

Fig. 7.

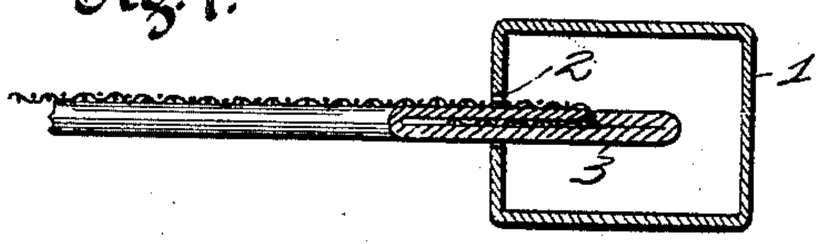

Fig. 6

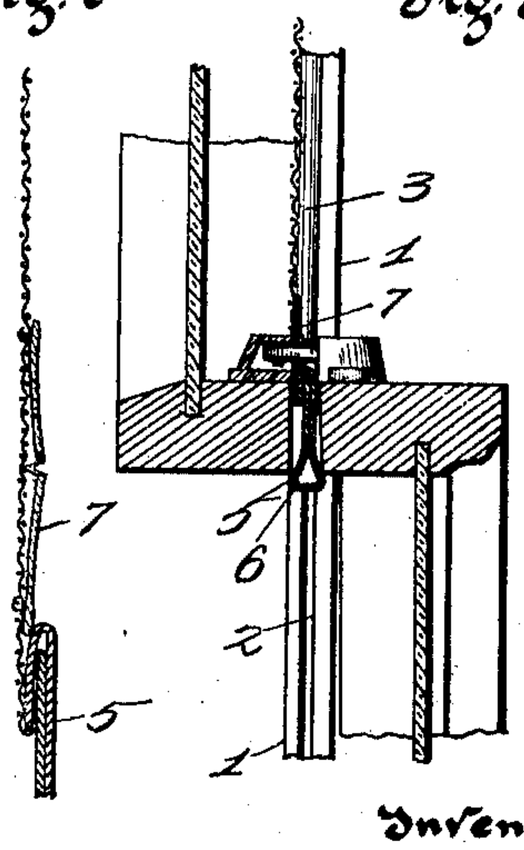

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES ALBERT LONG, OF SHREVEPORT, LOUISIANA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 686,981, dated November 19, 1901.

Application filed February 25, 1901. Serial No. 48,671. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ALBERT LONG, of the city of Shreveport, parish of Caddo, State of Louisiana, have invented certain new and useful Improvements in Window-Screens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to window-screens; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

The object of this invention is to provide a durable window-screen adapted to be retained within the window during all seasons of the year and which is provided with means for automatically adjusting itself to any variation of the window-frame.

Figure 1 is a perspective view showing the screen in position. Fig. 2 is a vertical section. Fig. 3 is a horizontal section. Fig. 4 is a detail vertical section, showing the construction of the frame. Fig. 5 is a detail view showing the position which the screen-frame assumes when elevated. Figs. 6 and 7 are detail views showing the different features of construction.

In constructing a screen in accordance with my invention special guideways are provided which are secured within the window-frame and are designed to be permanently retained therein. These guideways consist of the rectangular frames 1, preferably of metal and hollow throughout their length. They are adapted to be secured to the window-frame, one at each side, and on their inner sides are provided with vertical slots 2, extending their full length from the bottom to the top of the window. In these slots the frame of the screen operates and is permitted a certain lateral movement, whereby it may readily adjust itself to any irregularities of the window-frame.

The frame of the screen consists of the side members 3, bent double, as shown in Fig. 7, and inclosing the sides of the screen, so that no rough edges either of the screen or frame appear. The edges of the screen are inclosed between the sides of the doubled portion 3, which is clamped securely therein, preventing its removal, and thereby providing perfectly even surfaces. The upper ends of the side members are connected to the top member 4, preferably of metal and bent double, as shown in Fig. 4. The top member 4 incloses the upper side of the screen and is clamped thereon and holds the screens securely in position, forming a firm connection and leaving no rough edges. The lower portion 5 of the screen-frame consists of the metallic plate bent triple on its upper side and inclosing the lower edge of the screen, upon which it is firmly clamped to hold it in position. The lower side of the part 5 is substantially wedge-shaped, as indicated by 6, and the purpose of this construction will presently appear.

A horizontal cut is formed in the screen, near the lower side thereof immediately above the portion 5 of the frame, and the purpose of this cut is to receive the lock of the window and permit the window to be locked when the screen is raised, as shown in Fig. 5. This cut is strengthened by a section 7 of any desired material, which is also provided with a cut corresponding to the cut in the screen. The screen-frame is located in position, the sides 3 operating within the vertical slots 2 of the guideways 1. They do not extend entirely to the inner side of the said guideways; but, as shown in Fig. 7, they have a certain lateral movement, which permits them to become inclined in either direction to adjust themselves to the variations or irregularities of the window. The guideways 2, as shown in Fig. 2, are secured between the upper and lower window-sashes and are adapted to be retained permanently in position. In addition to forming the guideways of the screen they also perform the function of a retaining-strip for the window to hold it in position. The screen operates between the upper and lower sashes, between which a suitable space is formed to permit the upward movement of the screen. When down, the upper portion 4 of the screen-frame is immediately between the adjacent members of the different sashes, thereby closing the opening and preventing the passage of any insects. The screen, however, may be raised whenever desired, and when so located the lower portion 5 of the screen-frame is brought between the adjacent members of the win-

dow-sashes and the enlargement 6 is brought into the opening, thereby closing it. When raised, the window may be locked by means of the usual lock, the pivoted member of which operates through the cut formed in the screen. In this position the parts are shown in Fig. 5.

I provide means for raising the screen, which consist of a rope or other flexible connection 8, one end of which is connected to the upper side of the screen-frame, adjacent to the center thereof, and is passed over suitable pulleys 9, secured to the top of the window-frame. By drawing on the connection 8 the screen will be raised, and it may be retained in its elevated position in any desired manner, as by locking the window or by attaching the connection 8 to any suitable fastening device. As stated above, my improved screen is constructed for permanent use and may be left in position at all times without inconvenience. It forms a very close connection between the window-sashes, prohibiting the passage of any insects, and being constructed of metal will not easily rust or wear out. The lateral movement permitted by the special construction of the guideways 1 allows the screen to adjust itself to any inclination which the different parts of the window-frame may assume. No obstruction is encountered in operating the windows, and the windows may be locked together whether the screen be up or down.

The device is very simple in construction and may be easily operated and is very strong and durable.

I claim—

1. A window-screen having a frame composed of the metallic side members 3 bent double and clamped over the edges of the screen, the top member 4 bent triple and clamped over the upper edge of the screen, and the lower portion 5 bent triple and clamped upon the lower edge of the screen, and having its lower side formed in the shape of a wedge, substantially as specified.

2. In a window-screen, a metallic frame therefor, the lower side of which is wedge-shaped, and two guides secured in the window-frame between the sashes, the screen-frame being mounted therein and being provided with a slot near its lower side and having a reinforcing-section 7 secured thereto over the slot, there being a similar slot formed in said section 7, substantially as specified.

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

CHARLES ALBERT LONG.

Witnesses:
FRANK J. LOONEY,
S. CHATWIN.