W. N. CROPPER & S. L. LANCASTER.

SCREEN FRAME.

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1,243,715.

Patented Oct. 23, 1917.

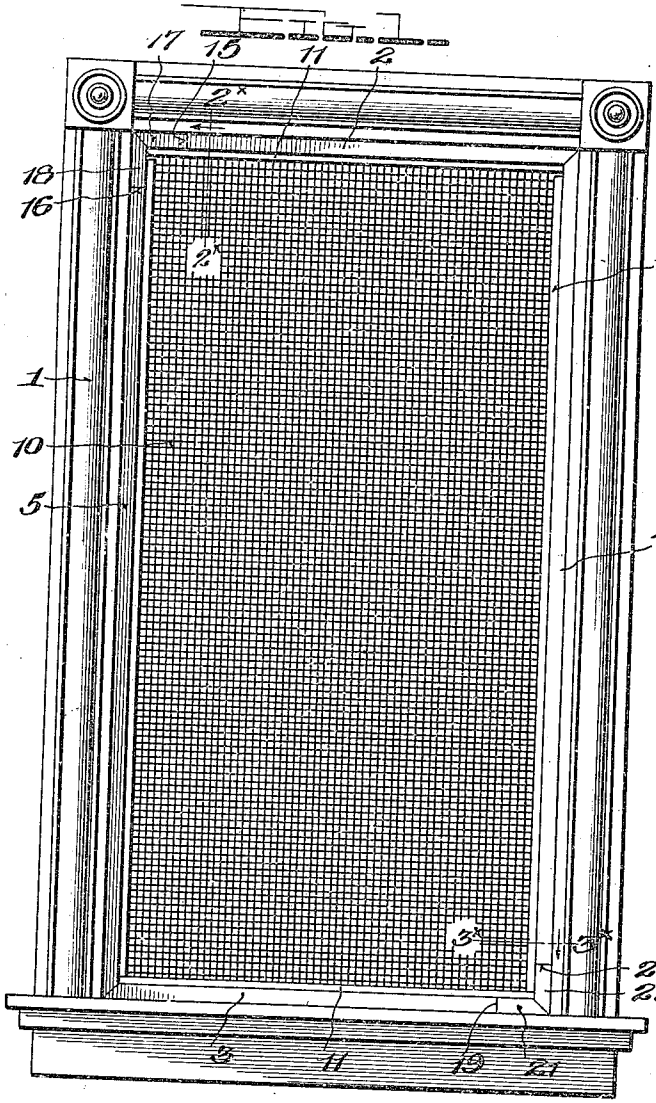


FIG. 1.

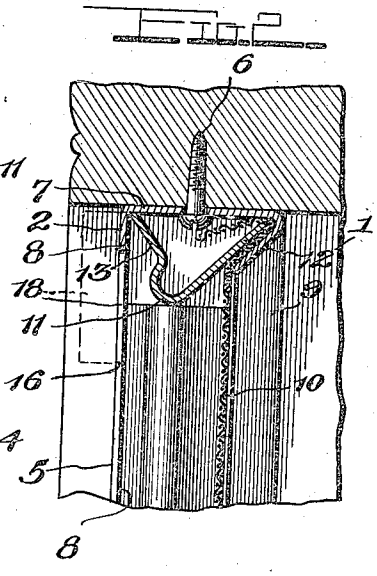


FIG. 2.

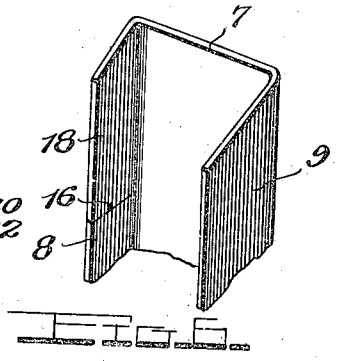


FIG. 4.

FIG. 6.

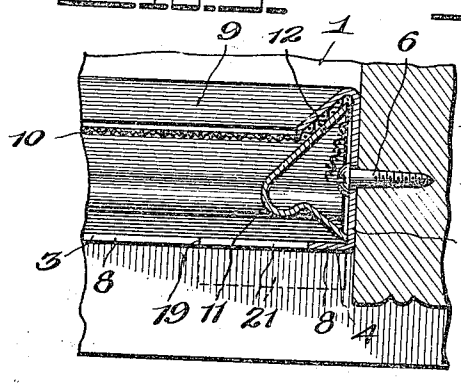


FIG. 3.

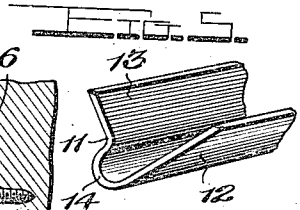
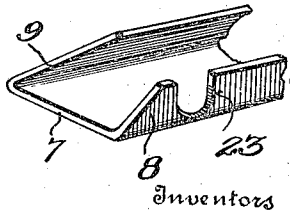


FIG. 5.



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SCREEN-FRAME.

1,243,715. Specification of Letters Patent. Patented Oct. 23, 1917.

Application filed May 31, 1917. Serial No. 171,968.

To all whom it may concern:

Be it known that we, WILLIAM N. CROPPER and SALLIE LEE LANCASTER, citizens of the United States, residing at Lexington, in the county of Fayette and State of Kentucky, have invented certain new and useful Improvements in Screen-Frames, of which the following is a specification.

The object of our invention is the production of a frame for holding a netting in windows, doors, on porches or other places where it is desirable to exclude flies, mosquitos, and other objectionable insects, and which may be conveniently taken out, replaced or changed at will.

One form of our invention is shown in the accompanying drawings, in which similar reference numerals designate corresponding parts, and wherein:—

Figure 1 is a front elevation of our improved frame with netting attached, as applied to a window frame;

Fig. 2 is a section on the line 2×—2× of Fig. 1;

Fig. 3 is a section on the line 3×—3× of Fig. 1;

Fig. 4 is a fragmentary perspective view of a channel strip;

Fig. 5 is a fragmentary perspective view of a keeper; and

Fig. 6 is a fragmentary perspective view of a modified form of channel strip.

Referring to the accompanying drawings, our invention is shown applied to an ordinary window frame 1, and, as illustrated, comprises, among other parts, top and bottom channel strips 2 and 3, and side channel strips 4 and 5, permanently attached to the inside of the window frame 1 by screws 6 or other suitable means. The said channel strips are cut on an angle at their ends to form right angle corners. Each channel strip consists of a base or flat part 7, with one edge 8 bent at an angle of about 90° to the base, while the other edge 9 is bent inwardly at an angle of approximately 45° to the base.

To be placed in these channel strips to hold firmly and securely a netting 10, are four keepers 11, one for each channel strip. Each of these keepers is substantially V-shaped in cross section, one side 12 of which is bent to conform to the side 9 of the channel strip, while the other side 13 forms an angle of approximately 90° with it. The sides of the keeper are joined by a bead 14, which permits a fabric to be placed over it without danger of cutting the fabric, and also forms a surface well adapted to receiving pressure in inserting the keepers in the channels.

The channel strips having been attached to the window frame, door or other opening in which it is desired to place a netting, the netting is cut one-half inch larger than the opening to be filled. If the netting is of wire, the sides and top and bottom are bent about one-half inch from the edges at a right angle to the face of the wire. It is then inserted in the channel strips and the keepers are inserted in the channels, the edges of the keepers being placed securely in the angles formed in the channel strips. The keepers may be sprung into place by putting pressure on their beaded tops.

When it is desired to take out the netting during the season when it is not needed, or if it is necessary to replace the netting, the keepers may be removed from the channel strips by inserting the point of a screw-driver, case knife or other suitable implement, beneath the keeper at one end thereof. For this purpose, the upper channel strip 2 has a section of its edge 8 and the side channel strip 5 has a section of its corresponding edge adapted to be bent outward to form openings to permit the inserting of said implement, the said channel edges being slit, as at 15 and 16, to permit sections 17 and 18 to be thus bent. For a similar purpose, one edge of the bottom channel strip 3 and one edge of the side channel strip 4, are similarly slit, as at 19 and 20 to form sections 21 and 22.

Instead of having one edge of such channel strip adapted to be bent as described, openings for the insertion of the prying implement may be formed by cutting away a portion of one of the edges of each channel strip, (as shown at 23 in Fig. 6) near the end thereof.

If it is desirable to have the netting out of the way in order to wash or repair a window, this may, for example, be done by removing the keepers at the bottom and on both sides, leaving the keeper in the channel at the top. When these three keepers have been removed, the netting may be pushed back out of the way until work on the window has been completed, when the netting may be returned to the channels in the manner already described.

Various modifications may be made in the form of the channel strip and the keeper without departing from the spirit of our invention.

Without limiting ourselves to the specific embodiment of our invention here shown and described, what we claim is:—

1. A device of the character described comprising a channel strip having edges bent inward at an angle to the base thereof, and a substantially V-shaped keeper having a bead connecting the sides thereof, and in which one of said sides is substantially tangential to the bead and the other of said sides normal to the bead.

2. A screen frame comprising a channel strip having one edge bent inwardly at an angle of about forty-five degrees to the base thereof, and the other edge bent at an angle of about ninety degrees to the base thereof, and a keeper substantially V-shaped and having a bead at the junction of the sides thereof and adapted to be inserted in said channel, the side of the keeper next to the channel edge bent at an angle of ninety degrees, when the keeper is inserted in the channel strip, forming an angle with the last-mentioned edge of said channel strip.

3. A screen frame comprising a channel strip having one edge bent inwardly at an angle of about forty-five degrees to the base thereof, and the other edge bent at an angle of about ninety degrees to the base thereof, and a keeper substantially V-shaped and having a bead at the junction of the sides thereof and adapted to be inserted in said channel, the side of the keeper next to the channel edge bent at an angle of ninety degrees, when the keeper is inserted in the channel strip, forming an angle of about forty-five degrees with the last-mentioned edge of said channel strip.

4. A screen frame comprising a channel strip having edges bent at an angle to the base thereof, a keeper approximately V-shaped to enter the channel to lock a fabric within said channel, said channel strip having one of its edges provided with a severed portion to permit the entrance of a prying implement to extract said keeper.

5. A screen frame comprising a channel strip having edges bent at an angle to the base thereof, a keeper approximately V-shaped to enter the channel to lock a fabric within the channel, and having a vertical cut in one of the edges of the channel strip near the end thereof whereby a part of said edge may be bent outwardly to form an opening for the insertion of an implement to extract said keeper.

In testimony whereof we affix our signatures.

WILLIAM N. CROPPER.
SALLIE LEE LANCASTER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."