(No Model.)

W. H. MILLER.

Mosquito Netting Attachments.

No. 230,487. Patented July 27, 1880.

Fig. 1.

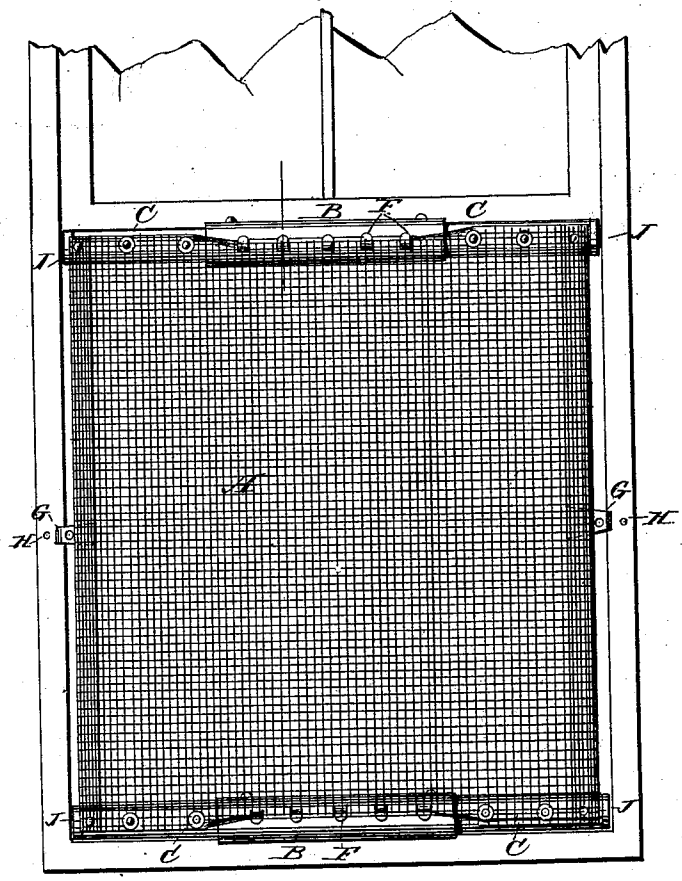


Fig. 2.

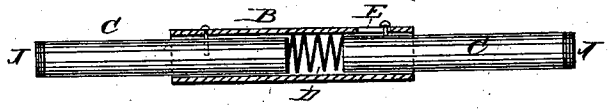


Fig. 3

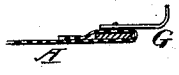


Fig. 4



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WILLIAM H. MILLER, OF PHILADELPHIA, PENNSYLVANIA.

MOSQUITO-NETTING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 230,487, dated July 27, 1880.

Application filed May 13, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MILLER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Mosquito-Netting Bar, of which the following is a specification.

The object of my invention is to provide new and improved mosquito-netting devices, by means of which mosquito-netting can be put up or taken down very easily and rapidly.

In the accompanying drawings, Figure 1 is a front elevation of a window provided with a mosquito-netting attached to two mosquito-netting bars. Fig. 2 is a longitudinal sectional elevation through one of the mosquito-netting bars. Fig. 3 is a side view of the clasp for fastening the side of the mosquito-netting. Fig. 4 is a cross-sectional elevation of the mosquito-netting bar, showing the lips for attaching the netting.

The netting A, or other perforated material, is attached at the top and bottom to a bar formed of a tubular metal or other suitable casing, B, into the opposite ends of which the rods C C are passed. A spring, D, is placed in the casing B, between the ends of the rods C, one of which is rigidly attached to the casing, whereas the other is adjustably held to the casing by means of a pin passing through a slot, E, in the casing, thus permitting the said rod to be drawn in and out of the casing a distance equal to the length of the slot.

The netting is tacked to the rods C C, and is attached to the casings B by means of lips F F, punched out of said casing; but the netting may also be attached in any other suitable manner.

A piece of tape or like material is attached to the side of the netting, and one or more clasps, G G, are attached to said tape or to the side of the netting, and are hooked on studs H H, driven into the window-casing.

A small disk, J, of rubber, leather, or other like soft material is attached to the outer ends of the rods C C, in order to protect the paint of the window-casing and to prevent the bars from slipping. The rods C C are then attached to the casing B in the manner described above. They are then pressed together and placed between the jambs of the window. The spring D presses against the inner ends, thus producing sufficient friction at the outer ends with the rubber disk to hold the bar in the window-frame. The other bar is secured in the same manner, and the clasps G G are then hooked on the studs H H, which are preferably set back from the edge of the casing, so as to give the netting a greater lap and to prevent it from being blown off.

The bars may be attached to the frame of the window any desired distance apart, and netting of any desired size may be attached to the same. If the netting is to cover the entire window a bar will also preferably be arranged in the middle.

The bars may be square, triangular, oblong, or circular, the latter form being preferred as the cheapest.

The clasps H H may be replaced by any other suitable kind of clasp.

The fixed rod is passed into the tubular casing a greater or less distance, according to the width of the window, before being secured in the said casing.

I am aware that it is not new, in sash-fasteners, to use tubular bolts with rubber tips and sliding in a thimble secured to the center of sash, said bolts being pressed by a coiled spring, or to use upper and lower bars provided with rubber cushions at one end and caps containing a spring at the other.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the netting A, of adjustable top and bottom bars, and of the clasps G and pins H, substantially as herein shown and described, and for the purpose set forth.

WILLIAM HOWARD MILLER.

Witnesses:

JAMES POLLOCK,

HENRY A. WEIDEMANN.