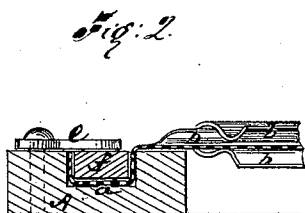
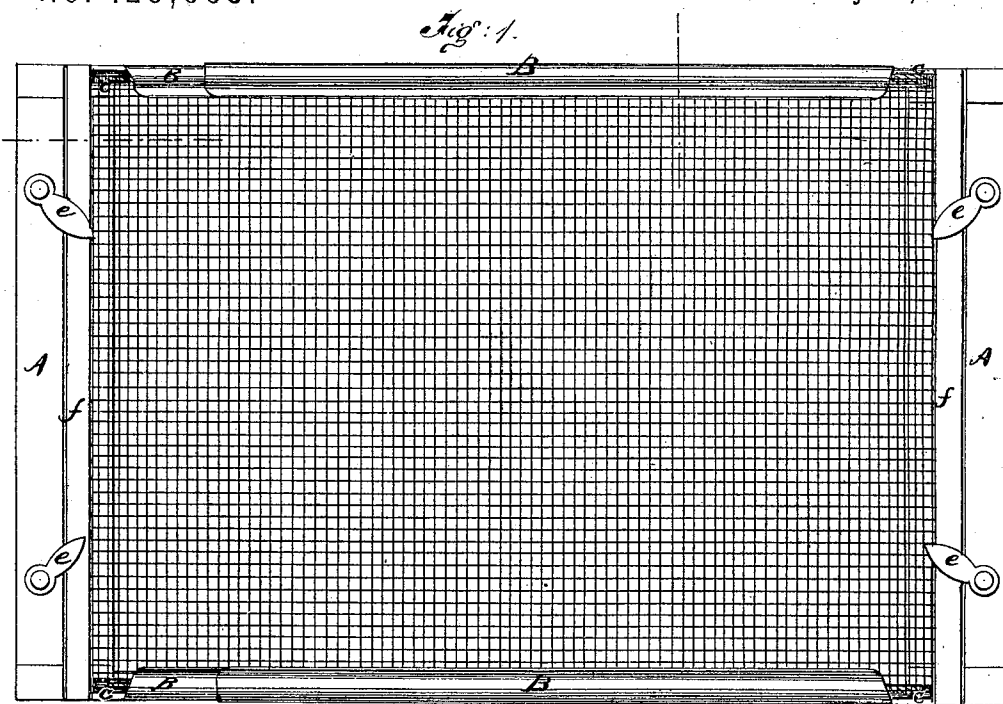


E. HOWARD.

Adjustable Frames for Mosquito-Nets.

No. 129,665.

Patented July 23, 1872.



Witnesses:

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UNITED STATES PATENT OFFICE.

EUGENE HOWARD, OF NEW YORK, N. Y.

IMPROVEMENT IN ADJUSTABLE FRAMES FOR MOSQUITO-NETS.

Specification forming part of Letters Patent No. 129,665, dated July 23, 1872.

To all whom it may concern:

Be it known that I, EUGENE HOWARD, of the city, county, and State of New York, have invented an Improved Adjustable Frame for Mosquito-Nets; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

This invention is in the nature of an improvement in frames for mosquito and other netting; and the invention consists in making such frame adjustable, so that it may be fitted to a window of any width without the necessity of having each frame specially made for any particular window.

In the accompanying sheet of drawing, Figure 1 represents a side view of my frame with netting attached; Fig. 2, a cross-section of same; Fig. 3, an end view, showing one tubular edge within the other and manner of securing netting within the same.

Similar letters of reference indicate like parts in the several figures.

A A represent two uprights or end pieces, which may be made from wooden molding or any suitable material, and may be of any desired size. Into said uprights are formed grooves *a a*, extending in the direction of the length thereof. These end pieces or uprights are placed at any suitable distance apart, and are connected together at their upper and lower ends by cylindrical tubing B B—the cylindrical tubing that is secured in any way to one upright fitting and sliding into the tubing that is secured to the other of said uprights, so that the tubing of one upright or end piece telescopes into the tubing of the other. (See Fig. 1.) By this means, as will be readily seen, the end pieces may be extended or placed apart from each other to any desirable distance, which will only be limited by the length of the tubing, and this, of course, may be of any length. To facilitate the sliding of the tubes—one within the other—a slight flare, *b b*, is formed at the edges of each section of tube. The flare of one section riding on the flare of the other tends to keep them together and makes the frame more rigid. The flare *b b*, however, is not necessary to the complete construction of my frame. As is obvious, the tubes may work one with-

in the other without the aid of such flare. The frame being constructed substantially as above described, the netting is prepared for fitting it by stitching a cord, *c*, into the side edges of the netting, the cord being of such size as will prevent the netting from being drawn out through the opening *d* in the tubing, as shown in Fig. 3. The edges of the netting thus prepared are passed into the tubing, and the ends of the netting are then stretched until they lie over the grooves *a a*, where they are tightly secured by strips *f f* entering therein, forcing it in the grooves and holding the netting to the uprights or end pieces A A. The strips *f f* are then kept in place by buttons *e e*.

The frame and netting being now secured, the one to the other, it is only necessary to extend or contract the length of the frame in order to make it fit the width of any window desired. It being then placed in position, the window-sash is lowered down upon the upper edge of the frame, which tightly and securely holds it in place.

If desired, a roller may be affixed to one of the uprights or end pieces A A, by means of which the slack of the netting may be taken up whenever desired, and in this way at all times keep the netting smoothly stretched; or the netting may be extended to fit to windows of greater width by this means.

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

1. An adjustable frame for mosquito or other netting, when the upper and lower edges are formed from tubular sections open on one side and provided with flanges, as described.

2. An adjustable frame for netting in which the upper and lower sections are tubular and fitted one within another, and the end pieces are provided with strips and grooves for holding the netting in place, substantially as described.

3. An adjustable frame having the netting secured to sliding tubular sections by means of a cord stitched to the edges thereof, in the manner described.

EUGENE HOWARD.

Witnesses:

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