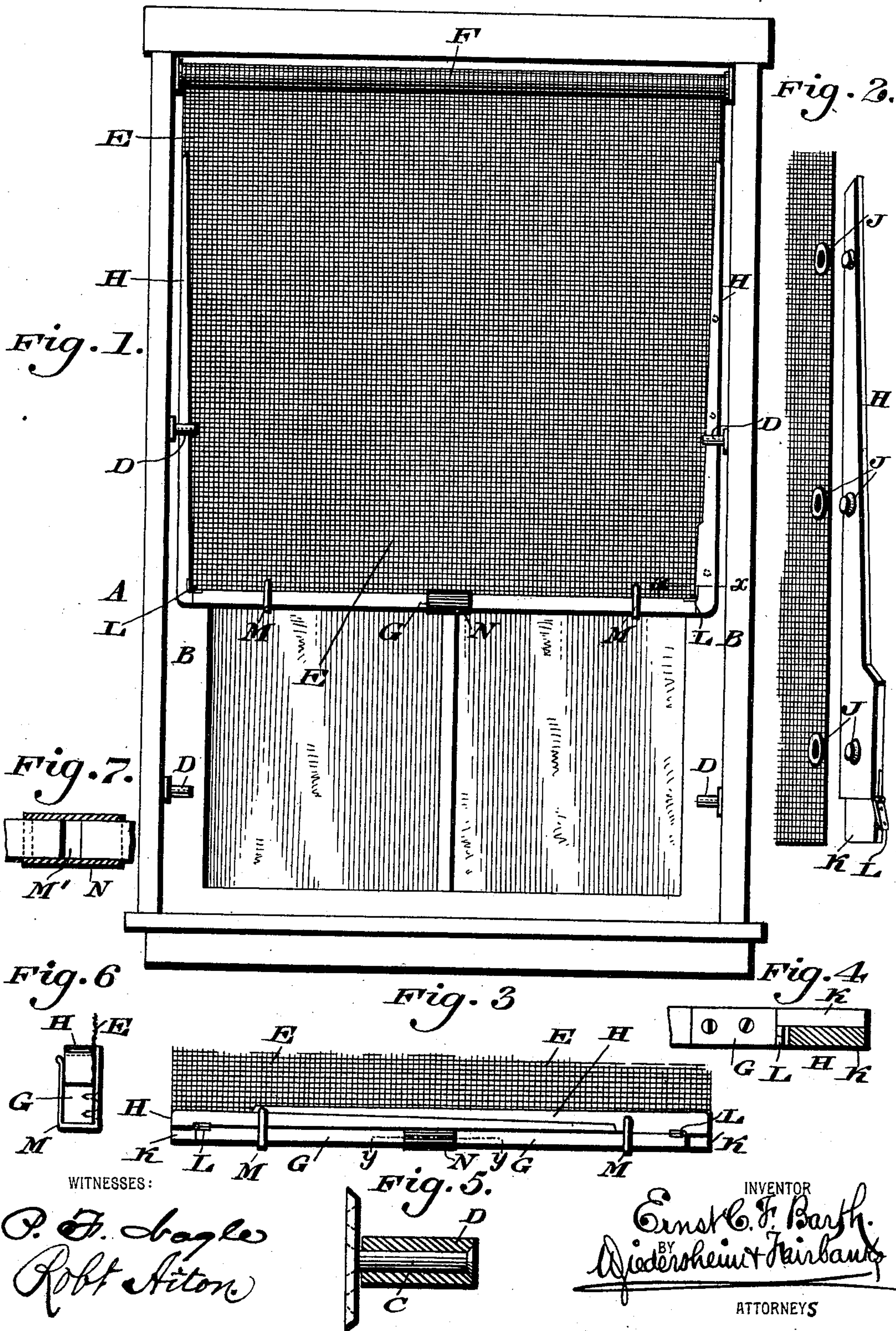


(No Model.)

E. C. F. BARTH.
INSECT SCREEN.

No. 594,224.

Patented Nov. 23, 1897.



UNITED STATES PATENT OFFICE.

ERNST C. F. BARTH, OF PHILADELPHIA, PENNSYLVANIA.

INSECT-SCREEN.

SPECIFICATION forming part of Letters Patent No. 594,224, dated November 23, 1897.

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To all whom it may concern:

Be it known that I, ERNST C. F. BARTH, a subject of the Emperor of Germany, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Insect-Screens, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a screen which may be wound upon and unwound from a roller and is provided with means for holding the same in stretched or taut condition and also for preventing the flapping or swinging of the screen, the parts of the invention being hereinafter described, and pointed out in the claims that follow the specification.

Figure 1 represents a front view of an insect-screen embodying my invention. Fig. 2 represents a perspective view of a portion thereof. Fig. 3 represents a front view of the lower portion of the screen, showing the battens employed in folded condition. Fig. 4 represents a section on line *xx*, Fig. 1. Fig. 5 represents a section of one of the rollers employed. Fig. 6 represents an end elevation of the battens, Fig. 3. Fig. 7 represents a section of a portion on line *yy*, Fig. 3.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a window-frame, to the side stiles B of which are secured the upwardly-projecting pins or journals C, on which are mounted the rollers D, for purposes to be hereinafter described.

E designates a screen which is formed of gauze, netting, &c., and secured to the spring-roller F, so as to be wound upon and unwound therefrom after the manner of a shade.

Connected with the bottom of the screen is the horizontal batten G, to whose ends are hinged the vertical battens H, which are attached to the sides of the screen by means of the fastenings J, which in the present case consist of heads and sockets, the former being adapted to be sprung into the latter, thus holding the battens H in engagement with the screen, but permitting said parts to be disconnected when superior force is exerted to remove the heads from the sockets, or vice versa.

It will now be seen that the battens weight

the screen and likewise hold the same distended and in proper taut condition. The battens H also serve to stiffen the sides of the screen, and when the screen is drawn down said battens pass behind the rollers, so as to press the former against the screen and thus keep the fastening devices engaged and also hold the screen close to the sash-frame and prevent flapping or swinging thereof.

In order to cause the batten G to occupy the full width of the screen, the ends of said batten and those of the battens H are formed somewhat after the manner of rule-joints, as at K, and united by the hinges L, thus permitting the battens H to be placed in vertical and horizontal positions and avoiding openings at the lower corners of the screen.

It will be seen that when service of the screen is not required the battens H are disconnected from the same, as shown in Fig. 2, and folded on the battens G. The screen may now be wound or rolled up, limited by the folded battens; but, if desired, the batten G may be disconnected from the screen and so removed therefrom and with it the battens H.

In order to retain the battens in proper condition one on the other when folded, I employ the U-shaped spring-clips M, which embrace the battens, as shown in Fig. 3, the effect of which is evident.

To provide for longitudinal adjustment of the batten G, the same is divided, as at M', and the adjacent ends are united by the sleeve N, thus connecting the same, but permitting of the sections of said batten to be moved to and from each other and thus shorten or lengthen the batten relatively to the width of the screen.

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

1. A screen having battens on the sides and bottom thereof, said battens being hinged together, the side battens being detachable from the screen and provided with means for connecting the same therewith, in combination with a window-frame having rollers mounted on the side stiles thereof and adapted to have the side battens move therein.

2. A screen having side battens detachably connected with the lower ends thereof and a bottom batten, adjustable in length, said side

battens being hinged to said bottom batten, so as to fold thereon, and said bottom batten having clips to receive said side battens when so folded.

5 3. A screen, and battens at the sides thereof, in combination with fastening-heads, and sockets on said parts.

4. A screen provided with a batten at the bottom thereof, and battens at the sides there-

of, said bottom and side battens being hinged together and provided with rule-joints, and said side battens being detachably connected with the screen.

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Witnesses:

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