(No Model.)

M. RUBIN.

FAN.

No. 382,242. Patented May 1, 1888.

Fig. 1.

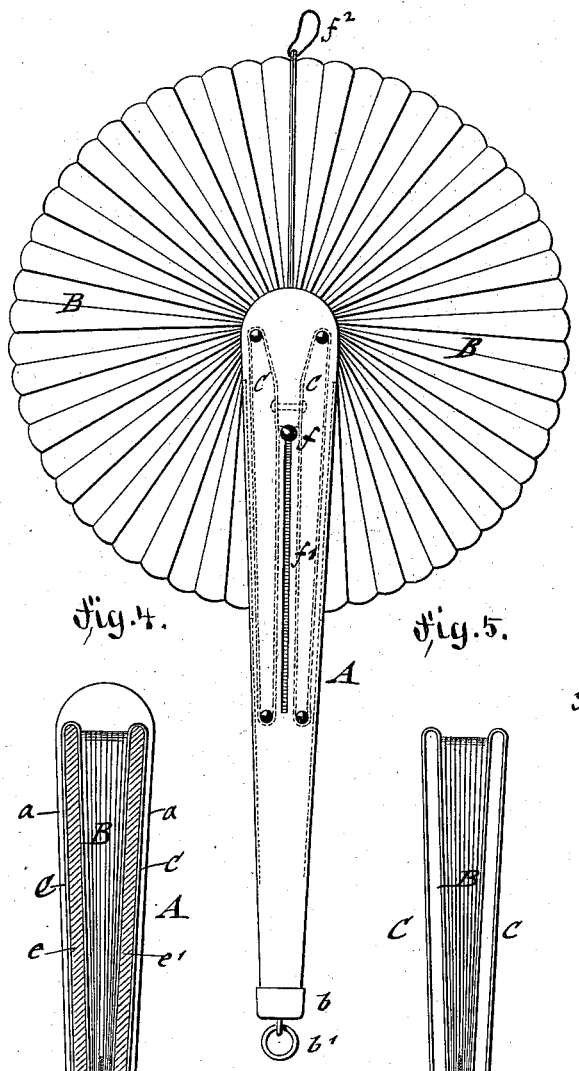


Fig. 2.

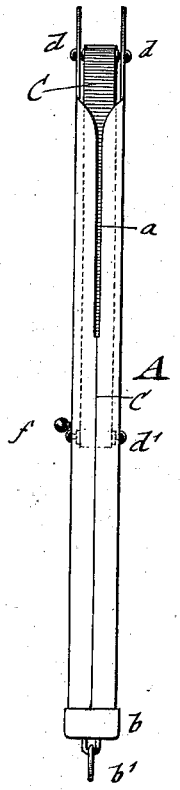


Fig. 3.

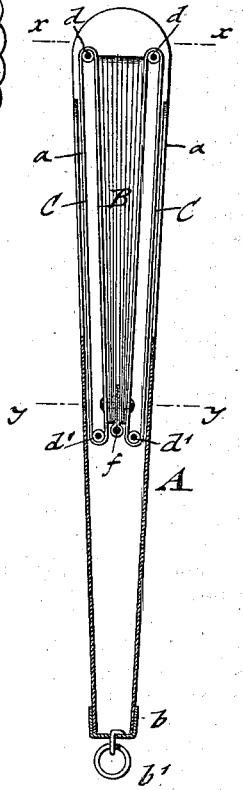


Fig. 4.

Fig. 5.

Fig. 6.

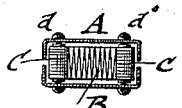
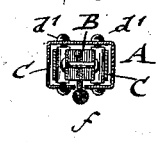


Fig. 7.



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SPECIFICATION forming part of Letters Patent No. 382,242, dated May 1, 1888.

Application filed December 20, 1887. Serial No. 258,446. (No model.)

To all whom it may concern:

Be it known that I, MAX RUBIN, of the city, county, and State of New York, have invented certain new and useful Improvements in Fans, of which the following is a specification.

This invention relates to an improved fan of that class in which a folding web is drawn out of or into a forked handle or shell, so as to be spread out into a circular fan or be folded up into the same; and the invention consists of a fan the casing of which is formed of two sections provided with longitudinal side openings or slits at the upper part and closed by a ferrule or cap at the lower or handle end, and of a folding web that is connected at the lower end and provided at the end folds with connecting-bands, said bands and end folds passing over fixed guides of the case, the distance between said pins corresponding about to the length of the folding web. To the folding web is applied a suitable push device, which serves to push the web in outward or inward position on the shell, so as to spread the web by the bands and guides into circular shape or fold it up in the case.

In the accompanying drawings, Figure 1 represents a side elevation of my improved fan, shown with the web drawn out. Fig. 2 is a side view of the fan with the web in closed position. Fig. 3 is a vertical transverse section of the same, also with the web inclosed in folded state in the fan-casing. Fig. 4 is a vertical longitudinal section of a modified form of fan; Fig. 5, a side view of the folded web, shown detached from the casing; and Figs. 6 and 7 are horizontal sections, respectively, on line *x x* and *y y*, Fig. 3.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the case or shell of my improved fan, which case is made of two sections that are arranged at the upper part with longitudinal side openings or slits, *a*, through which the web B extends when the same is in open position. To the lower or handle end of the case A is applied a cap or ferrule, *b*, having a ring, *b'*, the ferrule holding the lower end of the case in position. The web B is inserted into the upper end of the case A, made of muslin or other suitable material, and folded up into narrow folds, the folds being riveted together at the inner or butt end of the web B. To the end folds of the web B are applied endless bands C C, which are guided around fixed transverse pins *d d'*, which connect the upper part of the fan-case A and the handle part of the same, respectively, near the upper and lower ends of the folded web B, the pins being provided with anti-friction rollers or sleeves, so as to facilitate the easy sliding of the bands C and end folds over the same. In place of the pins *d d'*, fixed guides *e e'*, with rounded-off ends, may be used, as shown in Fig. 4. The length of the guides *e e'* corresponds to about the length of the folded web.

For opening and closing the fan a suitable push device is used, which consists of a push-button, *f*, that is attached to the butt-end of the web B, as shown in Fig. 3, said button being guided in a longitudinal slot, *f'*, of the case A; or a loop, f^2, may be applied to the re-enforced middle fold of the web B, as shown in Fig. 1; or any other device for pushing the web out of or returning it into the case may be used. When it is desired to place the fan in position for use, the web is pushed or pulled out of the case by the push device, so that the web unfolds and extends at both sides of the case through the longitudinal side openings or slits, *a*, of the same, as shown in Fig. 1. This is accomplished by the endless bands and end folds which pass around the fixed guides of the case. For closing the fan the web is drawn into the case by the push device, in which case the folding is accomplished in the same way as when opening the web by the endless bands attached to the end folds, said bands and end folds passing around the guides of the case, but in opposite direction to their former motion.

The fan can thus be conveniently opened or closed, and forms an easily-operated fan of simple, compact, and reliable construction.

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

The combination, with a case or shell hav-

ing longitudinal side slots, of a folding web in the same, endless bands applied to the end folds of the web, fixed guides applied to the case for guiding said endless bands and end folds, and a push device for moving the web out of the case and returning it into the same, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

MAX RUBIN.

Witnesses:
PAUL GOEPEL,
JOHN A. STRALEY.