(No Model.) 2 Sheets—Sheet 1.

M. RUBIN.

FAN.

No. 555,339. Patented Feb. 25, 1896.

Fig 1

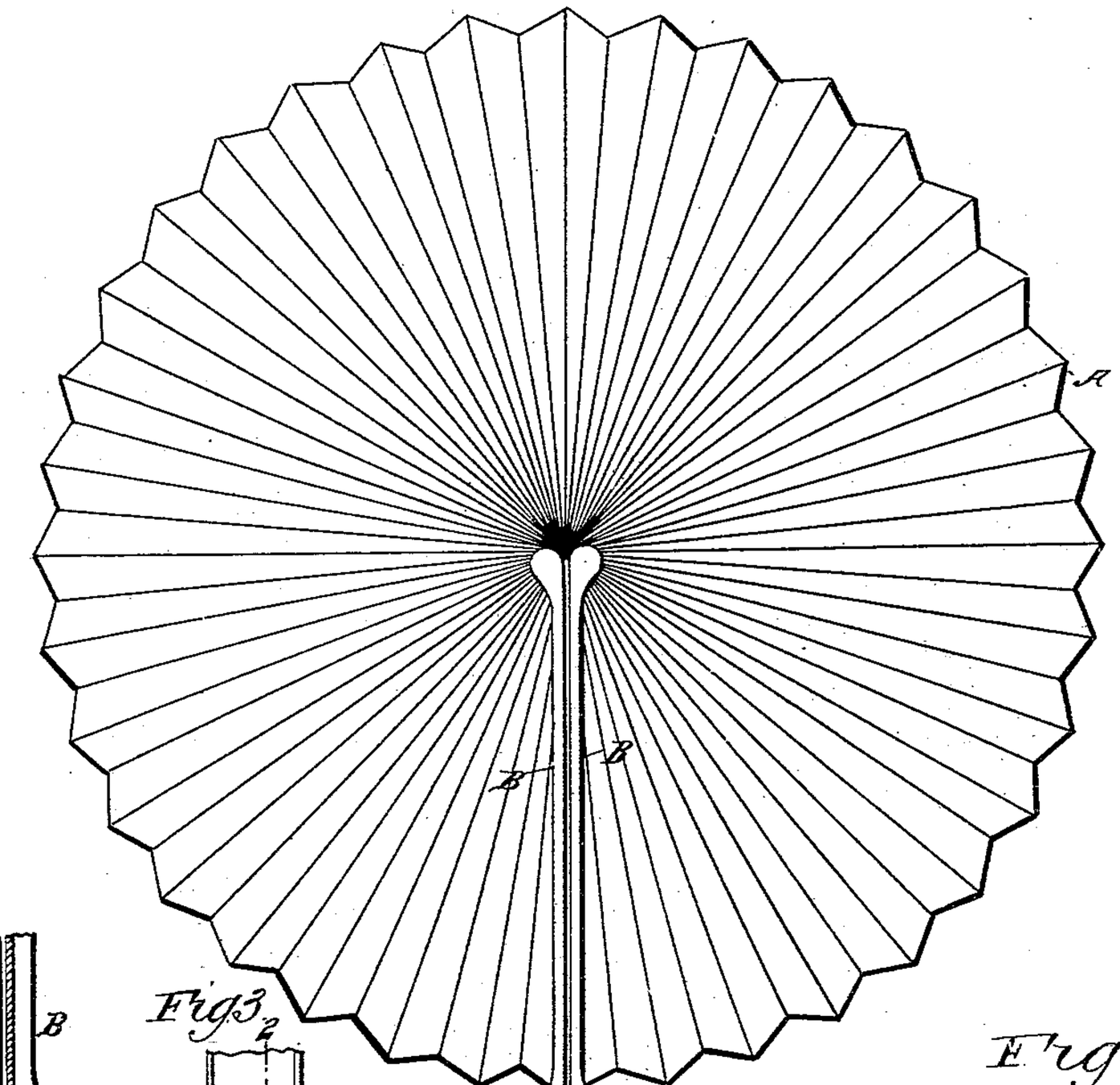


Fig 2.

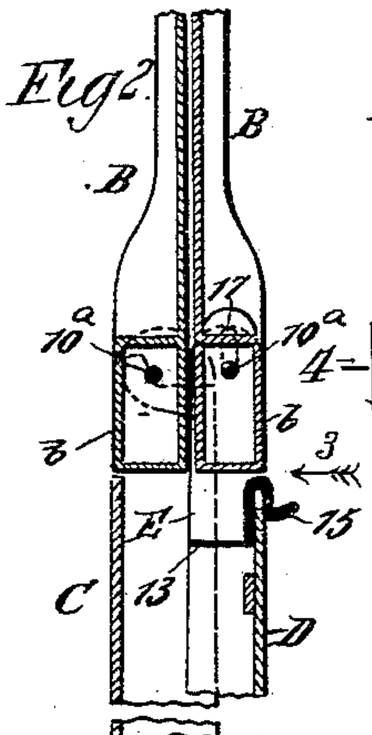


Fig 3.

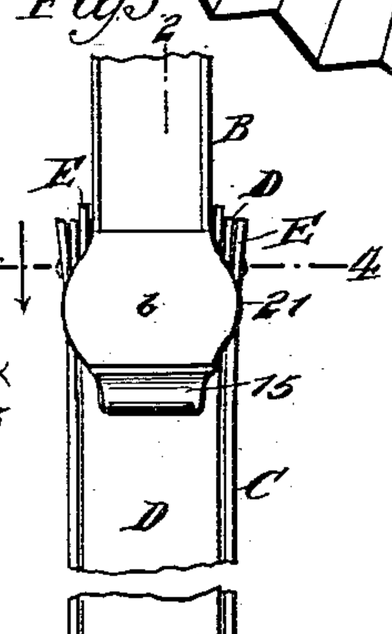


Fig 5

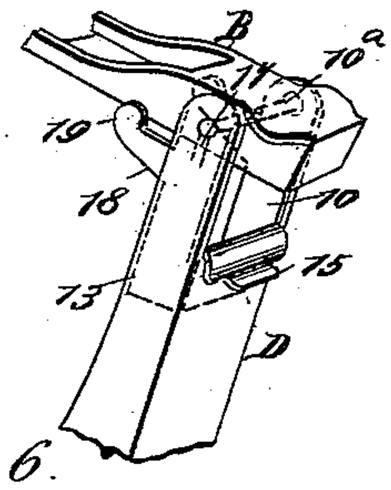
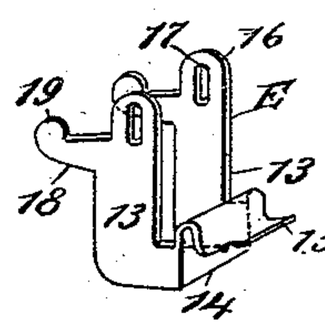


Fig 6.



WITNESSES:

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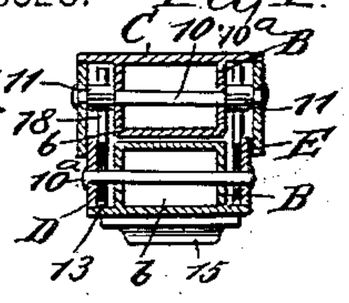
J. Fred. Acker.

Fig 4.



INVENTOR

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(No Model.) 2 Sheets—Sheet 2.

M. RUBIN.

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No. 555,339. Patented Feb. 25, 1896.

Fig 7.

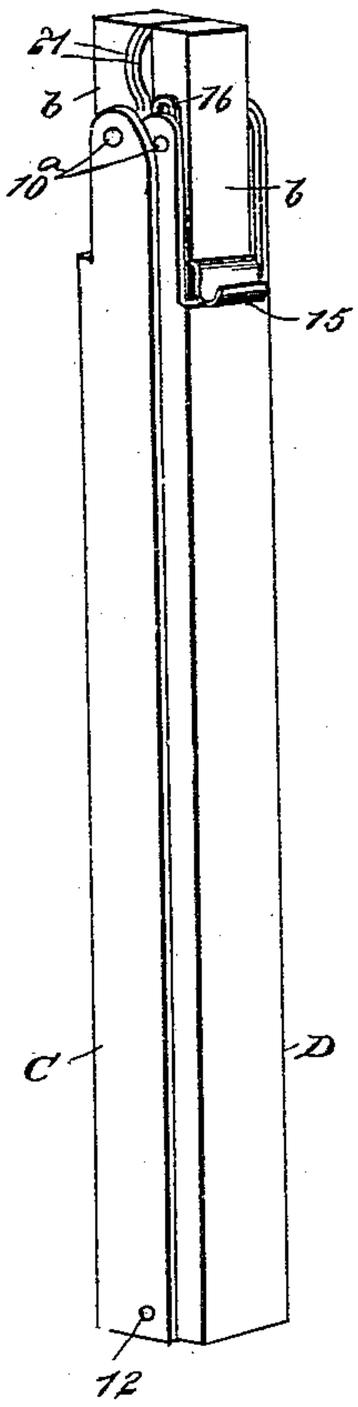


Fig 8.

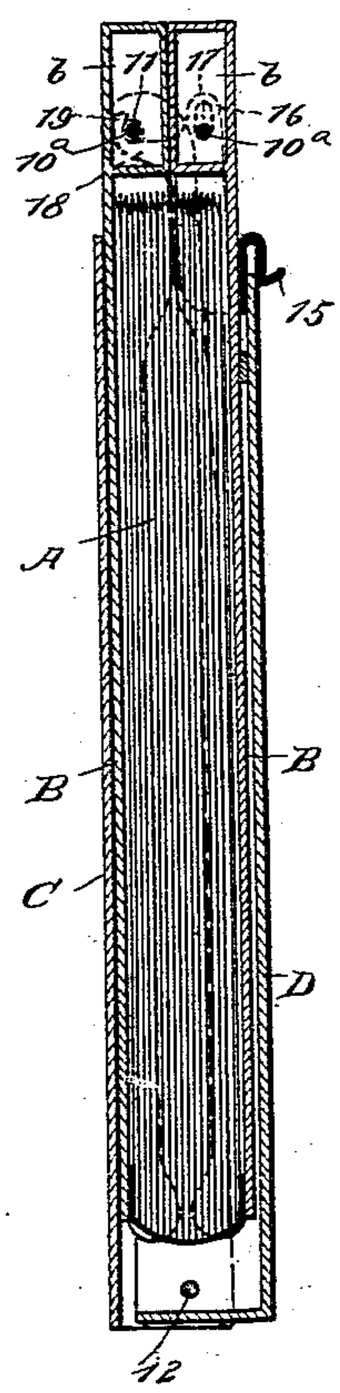
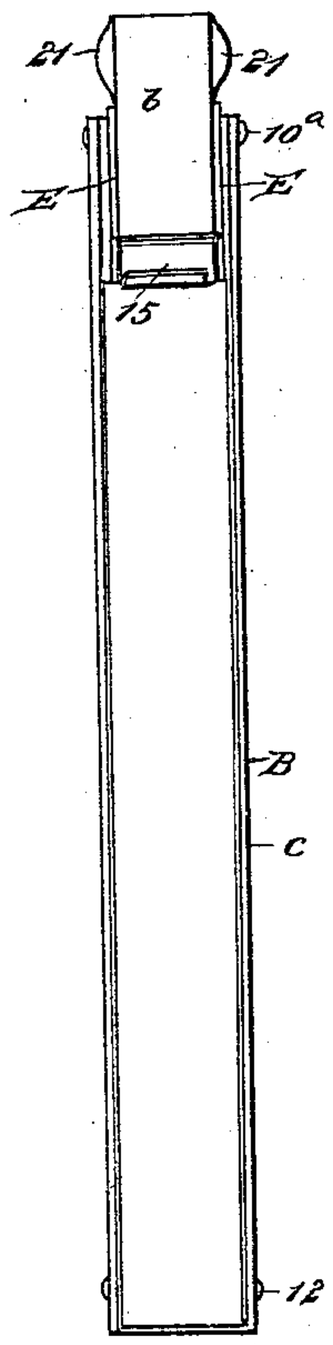


Fig 9.



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UNITED STATES PATENT OFFICE.

MAX RUBIN, OF BROOKLYN, NEW YORK.

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SPECIFICATION forming part of Letters Patent No. 555,339, dated February 25, 1896.

Application filed March 20, 1895. Serial No. 542,499. (No model.)

To all whom it may concern:

Be it known that I, MAX RUBIN, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Fans, of which the following is a full, clear, and exact description.

My invention relates to an improvement in fans, and especially to an improvement in that class of fans known as "pocket-fans," in which the body of the fan when not in use is folded up between receiving-arms; and the object of this invention is to provide a means whereby the receiving and retaining arms of the body of the fan may be held rigidly locked when the fan is opened, imparting to the retaining and receiving arms the same solidity as though both classes of arms were integral, and, furthermore, to construct the retaining device in such manner that it will act to as securely hold the fan in its closed as in its folded position.

A further object of this invention is to so construct the receiving-arms that they will more closely fold than heretofore when the fan is opened out, and, since the receiving-arms constitute the handle of the fan, thereby decrease the bulk of the handle.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the fan opened and locked in its open position. Fig. 2 is a section, taken substantially on the line 2 2 of Fig. 3, longitudinally through the receiving-arms and a portion of the retaining-arms. Fig. 3 is a side elevation, somewhat enlarged, of the receiving-arms or handle of the fan and a portion of one of the retaining-arms, the view being taken in direction of the arrow 3 in Fig. 2. Fig. 4 is a transverse section taken substantially on the line 4 4 of Fig. 3. Fig. 5 is a detail perspective view of the upper portion of the receiving-arm carrying the locking device and a portion of the retaining-arm pivotally connected with the said receiving-arm. Fig. 6 is a detail perspective view of the locking device disconnected from the fan. Fig. 7 is a perspective view of my improved fan, showing it closed. Fig. 8 is a sectional view of the fan in the same position; and Fig. 9 is a side elevation thereof, the fan being also closed.

The body A of the fan may be constructed in the usual manner or in any manner applicable to the body portion of a folding pocket-fan. In connection with the body A of the fan two retaining-arms B are employed. These retaining-arms are preferably made somewhat U-shaped in cross-section throughout a portion of their length, or, in other words, the said arms are channeled, the U shape extending from one end a predetermined distance beyond the center of the arms, the outer ends of the arms being solid or boxed, as shown at *b* in the drawings.

The retaining-arms B are located at what may be termed the "under side" of the fan-body when the said body is in segmental form, and are adapted to be brought together when giving to the body of the fan a circular contour, the fan-body being made up of accordion or bellows plaits. The body of the fan is secured at each side of its center in any approved manner to the channeled face of the retaining-arms, the channeled portion of the arms extending beyond the peripheral surface of the body.

In connection with each retaining-arm B a receiving-arm is employed, the two receiving-arms being designated as C and D, and each receiving-arm is provided with a longitudinal recess 10 at its upper end, whereby at this portion the receiving-arms comprise side pieces only. The recesses 10 are of sufficient size to receive within them the box or solid portions *b* of the retaining-arms, and the box portions of the retaining-arms are pivoted in the recessed portions of the receiving-arms by means of pivot-pins 10^a, the latter being passed through the upper portion of the receiving-arms.

The receiving-arms are U-shaped in cross-section or channeled, and the arm C is wider than the arm D, the latter being adapted to enter the former sufficiently to bring the retaining-arms B substantially in contact. At each side of the box portion of the retaining-arm, which enters the larger receiving-arm

C, a washer 11 is introduced upon the pivot-pin 10^a, as is best shown in Fig. 4. The lower ends of the two receiving-arms C and D are pivotally connected by a pin 12 or the equivalent thereof, the said pin passing through the flanged portions of the two retaining-arms.

In connection with the body of the fan a locking device E is used, which is shown in detail in Fig. 6. This locking device comprises two side pieces 13, parallel, or substantially so, and vertically disposed, being connected at their bottom portions by a cross-bar 14, attached to an outwardly-extending offset or extension from the sides, and a thumb-piece 15, extending outwardly, is either integrally formed with or attached to the aforesaid cross-bar 14.

Each side piece 13 of the locking device is projected upward, forming vertical ears 16, and in each of said ears a vertical slot 17 is made, and a horizontal arm 18 is projected from what may be termed the "inner face" of the upper portion of each side piece 13, terminating at its extremity in an upwardly-extending lug 19. The locking device is applied to the narrower receiving-arm D, as follows: The locking device is placed within the aforesaid receiving-arm, and the thumb-piece 15 is made to extend outward through the recess 10 of said arm, the pivot-pin 10^a of this arm being passed through the elongated slots 17 of the locking device, whereby the side pieces of the locking device will be in engagement with the inner faces of the flanged portion of the receiving-arm D and the arms 16 of the locking device will extend in direction of the wider receiving-arm C, the said arms of the locking device being so placed that when the receiving-arms are folded one within the other when the fan is opened, as shown in Fig. 1, they will pass below the pivot-pin of the wider arm C, and the lugs of the arms 18 of the locking device will pass upward back of the washers 11 of the aforesaid wider arm C, and by pushing the thumb-piece upward the lugs will be carried immediately back of the said washers 11, locking the two retaining-arms firmly together and making them virtually integral.

When the fan is to be closed, the thumb-piece 15 of the locking device is drawn downward and will be released from the washers on the pivot-pin of the wider receiving-arm C, permitting the two receiving-arms to be carried outward in opposite directions in order that they may receive between them the body of the fan and the retaining-arms, whereupon the two receiving-arms are again brought together, having within them the folded body of the fan, and the locking device is then manipulated, as heretofore stated, to secure the receiving-arms in this latter position, and the fan will present at this time simply a bar of such length as to be conveniently carried in the pocket.

One of the important features of this invention is to provide a means whereby the retaining-arms when the fan is opened will be held rigidly in engagement with the receiving-arms, and this is effected by forming side extensions or ears on the boxed or pivotal ends *b* of the retaining-arms, the said ears or projections being designated in the drawings by the reference-numeral 21, and they are of sufficient length to engage with the outer walls of the receiving-arms at their recessed portions 10 when the fan is open, as shown in Figs. 3 and 4. Under this construction the retaining and receiving arms are held steady and stiff when the fan is opened, even prior to the application of the locking device, but of course more so when such device is operated.

It will be understood that the handle-section or receiving-arms, together with the locking device shown, may be used for other purposes than the handle of a fan.

The catch may be made of any suitable material. For example, it may be constructed of wire, and in some instances such construction is to be preferred.

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

1. In a fan, the combination of two receiving-arms pivoted to each other at one end, the said receiving-arms being U-shaped in cross-section and capable of fitting one within the other, two retaining-arms respectively pivoted to the free ends of the receiving-arms and capable of swinging in and out of said receiving-arms, and a fan-body fixed to the retaining-arms, substantially as described.

2. In a fan, the combination of two receiving-arms U-shaped in cross-section and pivotally connected to each other, one of said arms being larger than the other and capable of fitting within the same, a retaining-arm pivotally connected to each receiving-arm and capable of fitting within the receiving-arms, a locking device carried by one receiving-arm and capable of removable engagement with the pivot of the retaining-arm, carried by the remaining receiving-arm, and a fan-body, substantially as described.

3. In a fan, the combination of two receiving-arms, pivotally connected to each other, said arms being U-shaped in cross-section and one arm being smaller than the other so that it may be received therein, a retaining-arm pivotally connected to the free end of each receiving-arm, the pivot of the retaining-arms being at a point inward from the ends and said arms having laterally-projecting ears engaging with the respective receiving-arms and limiting the movement of the retaining-arms, and a fan-body carried by the retaining-arms, substantially as described.

4. In a fan, the combination of two receiving-arms pivotally connected to each other, a retaining-arm pivotally connected to each

of the receiving-arms, a fan-body carried by the retaining-arms, and a locking device slidable on one receiving-arm and having a projection capable of engaging with the retaining-arm pivot on the remaining receiving-arm, substantially as described.

5. In a fan, the combination of two receiving-arms pivotally connected to each other at one end and having each of their free ends formed with two transversely aligned and duplicate projections, a retaining-arm pivoted between each pair of these projections and having one end fitting between the same, the said end being provided with laterally-extending ears capable of engaging with the inner ends of the projections and of limiting the movement of the retaining-arms, and a fan-body carried by the retaining-arms, substantially as described.

6. In a fan, the combination of two receiving-arms pivoted to each other, a retaining-arm pivoted to each receiving-arm, a fan-body carried by the retaining-arms, two washers mounted on the ends of the pivot of one retaining-arm, and a locking device slidably mounted on one of the receiving-arms, the said locking device having two projections respectively capable of engaging with the washers on the pivot aforesaid, substantially as described.

7. In a fan, the combination of two receiving-arms, U-shaped in cross-section and pivotally connected to each other, the said arms being of different sizes and capable of fitting one within the other, retaining-arms respectively pivoted to the free ends of the receiving-arms, a fan-body carried by the retaining-arms, and a locking device capable of holding the two receiving-arms together, substantially as described.

8. In a fan, the combination of two receiving-arms pivotally connected to each other and U-shaped in cross-section, a retaining-arm pivoted to the free end of each receiving-arm, and a locking device having two elongated slots thereon through which the pivot of one retaining-arm passes, the locking device also having a laterally-extended projection capable of engaging with the pivot of the remaining retaining-arm, substantially as described.

MAX RUBIN.

Witnesses:
J. FRED. ACKER,
JNO. M. RITTER.