No. 835,761. PATENTED NOV. 13, 1906.

D. T. KENDRICK.

FAN.

APPLICATION FILED AUG. 28, 1905.

2 SHEETS—SHEET 1.

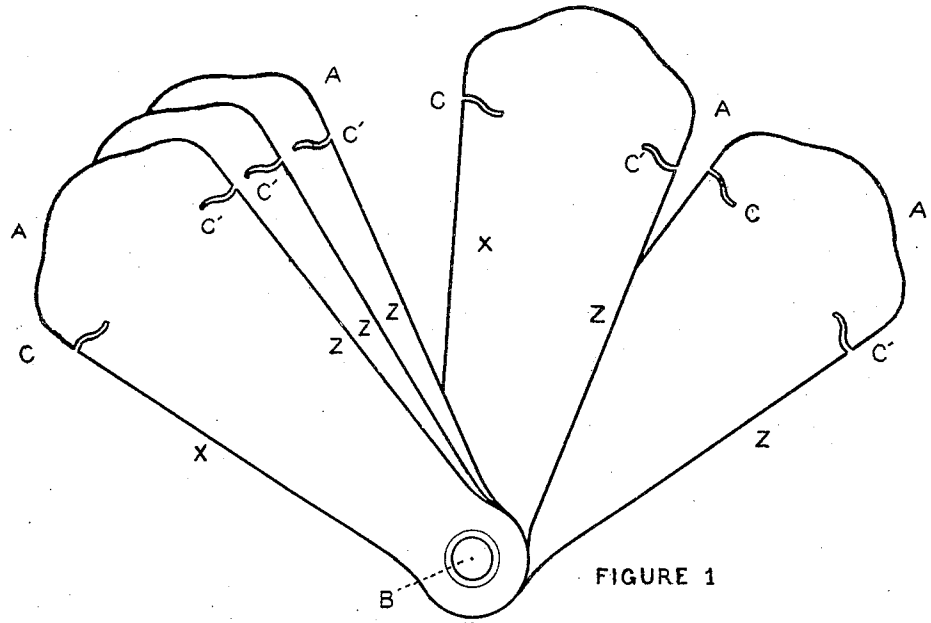


FIGURE 1

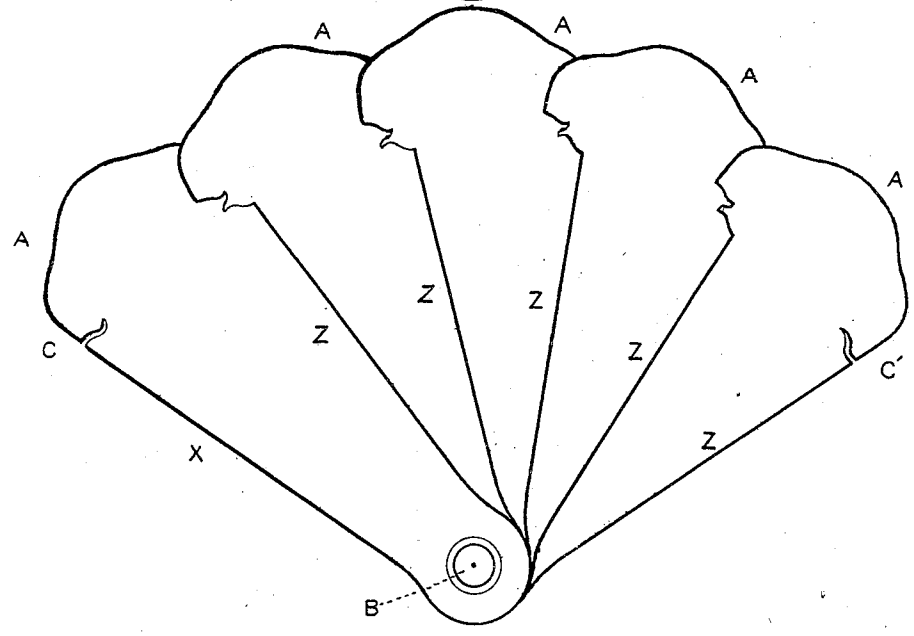


FIGURE 2

WITNESSES

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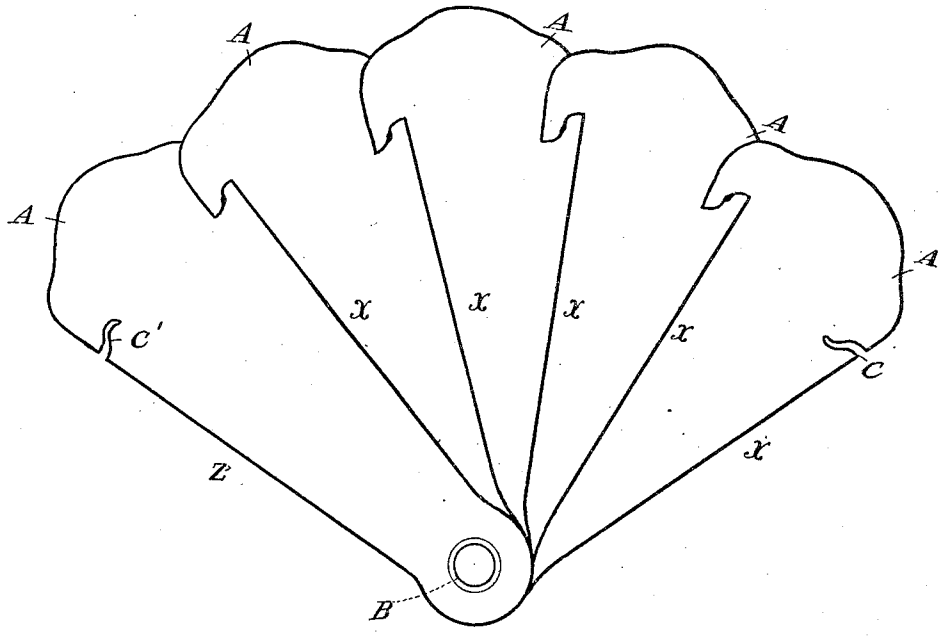


FIGURE 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

DYER T. KENDRICK, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO LIVERMORE & KNIGHT COMPANY, OF PROVIDENCE, RHODE ISLAND, A CORPORATION OF RHODE ISLAND.

FAN.

No. 835,761. Specification of Letters Patent. Patented Nov. 13, 1906.

Application filed August 28, 1905. Serial No. 276,150.

To all whom it may concern:

Be it known that I, DYER T. KENDRICK, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Fans, of which the following is a specification, reference being had therein to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a view in elevation of my improved fan with its leaves or sections disengaged. Fig. 2 is a view of one side of the fan in elevation when the leaves or sections are engaged and are in operative position. Fig. 3 is a view in elevation of the opposite side of the fan when the leaves or sections are engaged and extended in operative position.

My invention relates to toilet-fans, and more especially to means for engaging and disengaging the leaves thereof by the use of locking-slots on the edges of said leaves.

In the drawings, A A represent separate fan leaves or sections made of stiff paper, pasteboard, or sheets of any suitable and flexible material. Each leaf or section A is preferably made with a symmetrical and approximately sector-shaped contour or edge, the peripheral portion of which may be varied from a true arc to secure any desired ornamentation. The leaves A are loosely connected in a pile by an eyelet B or other pivot at or near their apexes, so that they may turn loosely on said eyelet or pivot in parallel planes.

In each straight or radial edge of each sector-shaped sheet or leaf A is cut a locking-slot, the slot on the edge *x* being designated in the drawings as C and the slot on the opposite edge *z* being designated as C′. The slots are preferably **S**-shaped, and they are made in such positions that the slot C of one fan-leaf A is capable of engaging with the slot C′ of the next adjacent fan-leaf A.

When not in use, the leaves A A are all so swung or turned on the pivot or eyelet B that their radial edges *x* are all in one plane and their radial edges *z* are all in another plane, and thus the leaves are compactly closed together.

The fan is put into its open or operative position by taking in one hand one leaf-section A and slightly bending it transversely near its slots and taking the next adjacent leaf-section in the other hand and similarly bending it and then bringing said two leaf-sections A A into an overlapping position, the meanwhile guiding the slot C of one and the slot C′ of the other so that said leaf-sections engage with each other along the edges of said slots. The resilience of the leaf-sections in resuming their normal straight positions or planes causes them to engage each other mutually, so that they cannot be disengaged by a force exerted in a plane at right angles to the axis of the revolution of their movement on the pivot B. These slots C and C′ are then interlocking slots, and although allowing a very slight lateral movement of one leaf A upon the other prevent the lateral separation of one from the other.

All the leaves A of the fan are similarly engaged, each with the leaf next adjacent, and then as all the leaves are extended to their full operative limit, as illustrated in Fig. 2, the fan is ready for use. As seen in Fig. 2, the slotted portions of the leaves A when engaged and interlocked, as described, present the appearance and serve the function of hooks, which limit the lateral movement of the leaves in both an outward and inward direction and give the fan strength to resist pressure applied thereto in either direction in the planes of the leaves, and the overlapping of the leaves A along their contiguous edges gives stiffness to the fan and affords the requisite resistance to any force which is applied at a right angle to the planes of said leaves.

The double curvature of each of the slots gives them their interlocking function. This curvature is of course resolvable into two elements of direction, one of which elements extends approximately at a right angle to the radial edge of the leaf A and the other of which elements extends approximately parallel to said edge. Therefore instead of forming the slots **S**-shaped, as shown in the drawings, they may have any other hooked shape which is resolvable into said two elements of direction.

I claim as a novel and useful invention and desire to secure by Letters Patent—

1. In a fan, the combination of two or more leaves pivotally connected at one end and having in each radial edge thereof a lock-

ing-slot so arranged that the edges of the slot of one leaf are engageable with the edges of the slot of the next adjacent leaf.

2. The improved fan herein described, consisting of two or more separate sector-shaped leaves, loosely mounted at or near their apexes upon a pivot and having slots in their contiguous radial edges and adapted to engage one with another *seriatim* by means of said slots respectively.

3. The improved fan, herein described, consisting of two or more separate sector-shaped leaves loosely mounted at or near their apexes upon a pivot and having interlocking slots in their contiguous radial edges, respectively.

4. The improved fan herein described, consisting of two or more separate sector-shaped leaves loosely mounted at or near their apexes upon a pivot; and each having a hook-shaped slot on each radial edge so located that the leaves can be engaged one with another *seriatim* along the contiguous slots.

5. The improved fan herein described, consisting of two or more separate sector-shaped leaves loosely mounted at or near their apexes upon a pivot and each having an S-shaped slot formed in each radial edge, and combined and operating substantially as specified.

6. In a fan, the combination of two or more separate sector-shaped leaves loosely mounted at or near their apexes and each having on each radial edge a slot so shaped as to have some portions of the slot edge disposed at a right angle with said radial leaf edge and some other portions of said slot edge disposed in directions parallel to said radial leaf edge.

In testimony whereof I affix my signature in presence of two witnesses.

DYER T. KENDRICK.

Witnesses:
WARREN R. PERCE,
ANNIE E. PERCE.