J. HAY.

Fan.

No. 212,690. Patented Feb. 25, 1879.

FIG 1

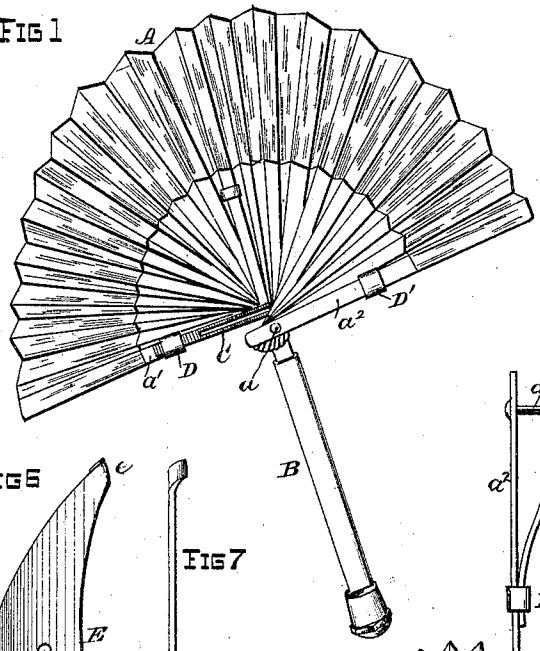


FIG 2

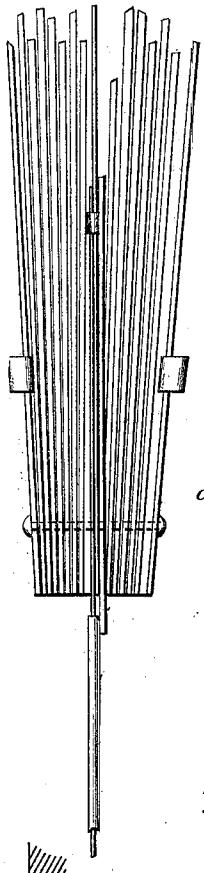


FIG 4

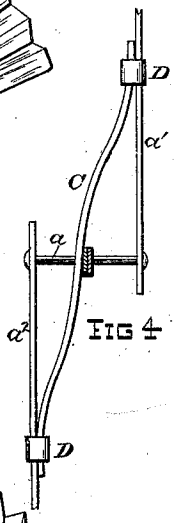


FIG 5



FIG 6

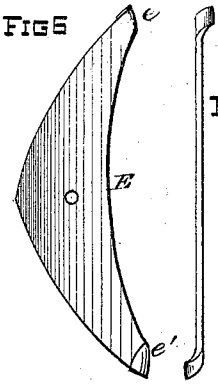
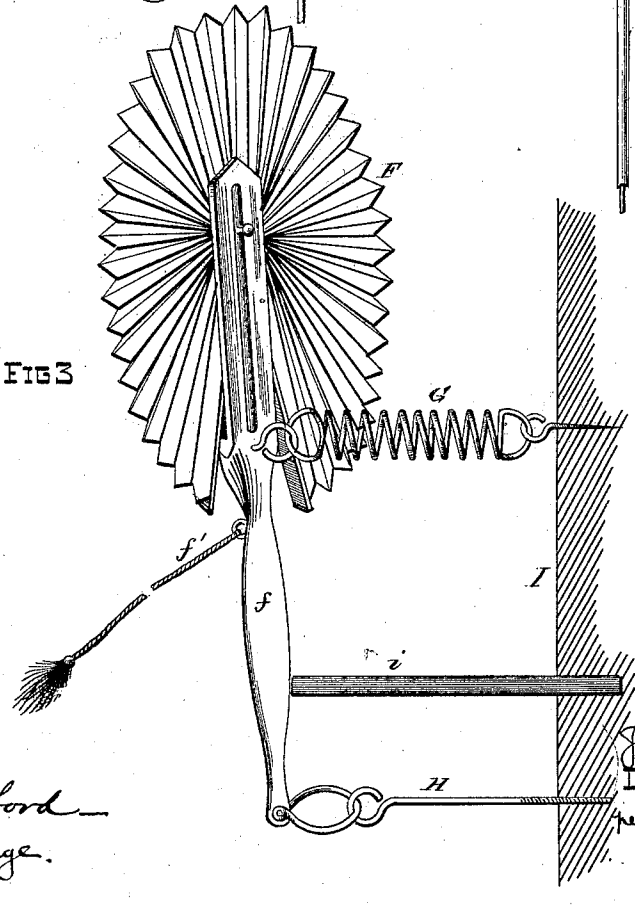


FIG 7



FIG 3



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IMPROVEMENT IN FANS.

Specification forming part of Letters Patent No. **212,690**, dated February 25, 1879; application filed July 1, 1878.

To all whom it may concern:

Be it known that I, JOHN HAY, of Junction City, in the county of Davis and State of Kansas, have invented certain new and useful Improvements in Fans; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved fan. Fig. 2 is a side elevation thereof. Fig. 3 is a perspective view, showing the rigid or elastic handle and elastic attachment. Figs. 4 and 5 are detail views of the bar or attachment for holding the fan in an expanded position, and Figs. 6 and 7 are front and side elevations of a modification of the same.

Corresponding parts in the several figures are denoted by similar letters of reference.

My invention appertains to certain improvements in hand and automatic fans; and it consists in providing the fan with an elastic handle or stem, and also of a bar or plate, suitably constructed and arranged, for holding the fan in an expanded position, substantially as hereinafter more particularly set forth.

In the annexed drawings, A marks a fan, of any preferred shape or construction, provided with a handle, B, made of any suitable elastic material—such as rubber, spring metal, whalebone, &c.

C represents a bar or plate, made preferably of metal, and having a slot, *c*, working on the axis or pin *a* of the fan A; and D D′ are rings or ferrules sliding on the outside pieces a^1 a^2 of the said fan A, which receive and hold the ends of the bar C.

The plate E, as shown in Figs. 6 and 7, is a modification of the bar or plate C, the ends of which are provided with hooks *e e′*, which lap on opposite sides to each other, as clearly shown in the drawings.

By this modification I do away with the rings D D′, the hooks *e e′*, lapping over the edges of the end pieces, a^1 a^2, of the fan A, accomplishing the same purpose.

Fans having a rigid handle—as, for instance, the palm-leaf—may be provided with an elastic sub-handle or stem, which will serve the purpose of a fan having its handle made entirely of elastic material.

The operation is as follows: Open the fan in the usual way, slide the slotted bar on its axis until the ends are equidistant from said axis, bring the bar parallel with the outside arms of the fan, and then slip the sliding rings over the ends of the said bar, when the fan will be held in an expanded position; next hold the bottom of the elastic handle in one hand, (which may rest upon the knee, arm of a chair, &c.,) having the fan inclined inwardly, and with the forefinger of the other hand press the fan inwardly, and then relax the pressure without removing the forefinger from the stem sufficiently to allow the fan to gain its original position, which will give it a graceful movement and produce an abundant current of air with a very slight exertion on the part of the operator, or it can be held and operated with one hand.

Fig. 3 represents a fan, F, having a rigid or elastic handle, *f*, to the upper end of which is secured at an angle thereto a metallic or other spring, G, and to the lower end a screw-rod or other suitable device, H.

The spring G and rod H are secured to any suitable surface, I, having a projecting rod, *i*, which presses against the handle *f*.

Attached to the handle *f*, near its upper end, is a cord, *f′*.

It will be seen that by pulling the cord the fan will be brought outwardly, and by relaxing the strain on the cord the distended spring will, by its contraction, return the fan to its original position.

The fans may be vibrated either by hand or by revolving arms from machinery.

When the fan A is closed, the bar C, by means of the slot *c*, can be inserted between the arms of the fan, as shown in Fig. 2, and thus prevent its being in the way, and also looking unsightly.

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

1. The combination, with a fan, of a slotted

or pivoted bar adapted to hold the fan in an expanded position, substantially as and for the purpose set forth.

2. In a fan, the bar C, with or without the slot *c*, in combination with the rings or ferrules D D′, substantially as and for the purpose set forth.

3. The combination, in a fan, of an elastic handle and a pivoted or slotted bar, substantially as and for the purpose set forth.

4. A fan provided with an elastic handle, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

JOHN HAY.

Witnesses:
JAMES H. COOK,
WM. OGDEN.