E. M. HANSLEY.

ATTACHMENT FOR FANS.

APPLICATION FILED NOV. 25, 1916.

1,249,077.

Patented Dec. 4, 1917.

2 SHEETS—SHEET 1.

FIG. 1.

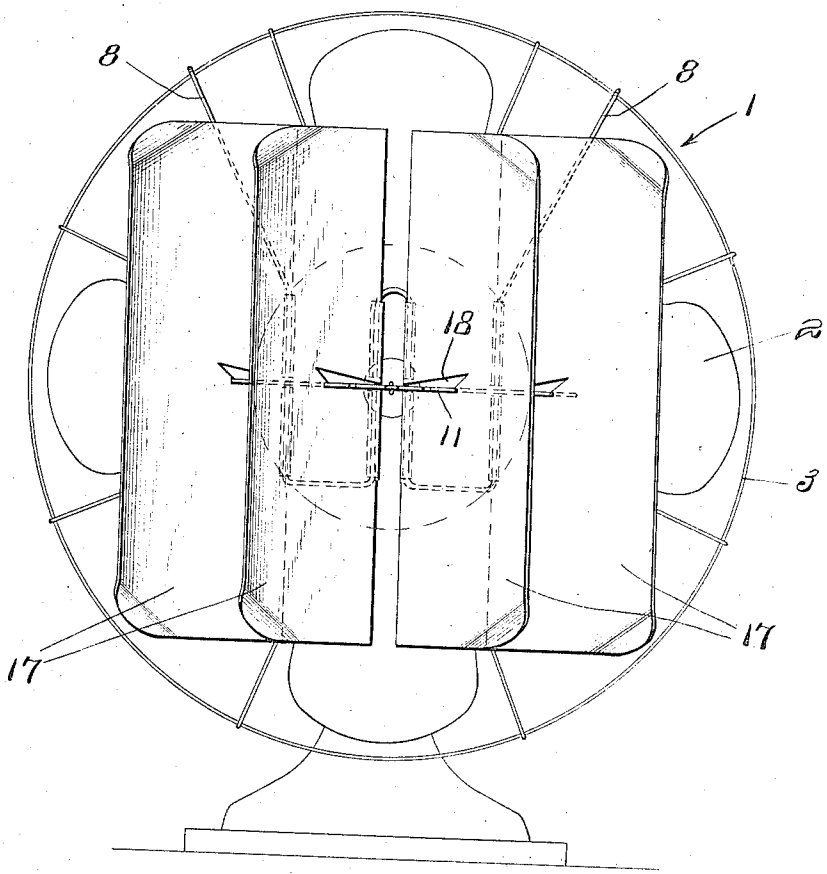
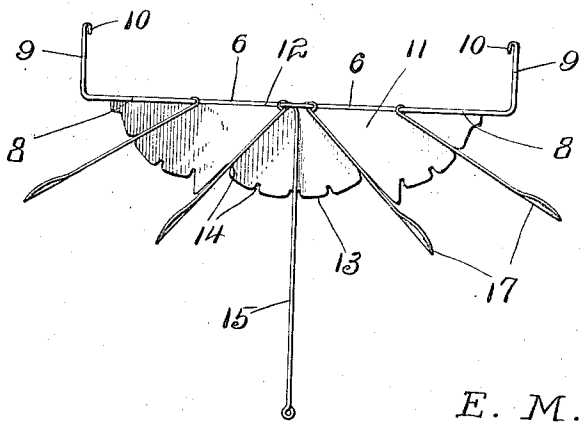


FIG. 2.



Witness

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2 SHEETS—SHEET 2.

FIG. 3.

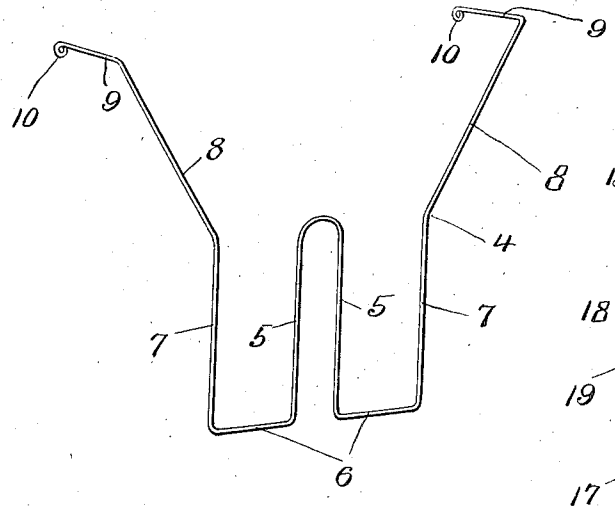


FIG. 4.

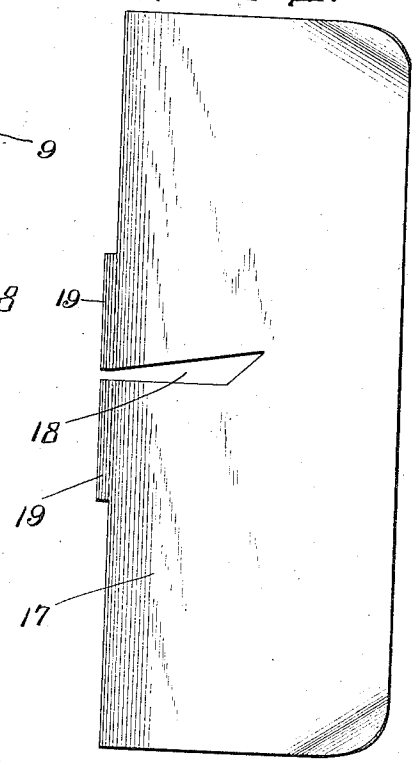
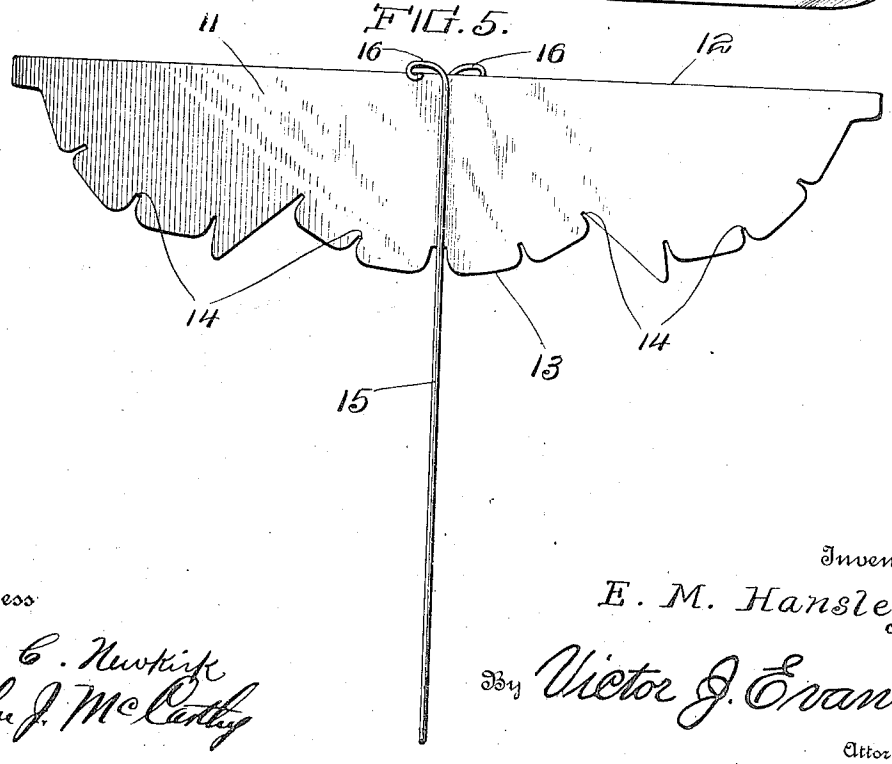


FIG. 5.



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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR FANS.

1,249,077. Specification of Letters Patent. Patented Dec. 4, 1917.

Application filed November 25, 1916. Serial No. 133,431.

To all whom it may concern:

Be it known that I, EDWARD M. HANSLEY, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented new and useful Improvements in Attachments for Fans, of which the following is a specification.

This invention relates to improvements in attachments for fans, and has particular application to a device for deflecting the air in desired directions from an electric fan.

In carrying out the present invention, it is my purpose to provide an attachment of the class described, which will embody a set of deflecting blades arranged in advance of the fan and connected to the cage of the latter, and capable of relative adjustment to different angular positions, so that the air from the fan may be deflected, and means associated with the blades for holding the latter in adjusted position, thereby preventing accidental relative movement of the blades after the latter have been set.

It is also my purpose to provide an attachment of the class described, which may be quickly and conveniently attached to the cage of the fan, which may be manufactured and sold at a comparatively small cost, and which will embody comparatively few parts, and these so arranged and correlated as to reduce the possibility of derangement to a minimum.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth and falling within the scope of the claims.

In the accompanying drawings:—

Figure 1 is a view in front elevation of my attachment applied to an electric fan.

Fig. 2 is a top plan view of the attachment removed from the fan.

Fig. 3 is a view in elevation of a detail of the attachment.

Fig. 4 is an enlarged side elevation of one of the blades.

Fig. 5 is a plan view of the plate, for holding the deflector blades and associated parts.

Referring now to the drawings in detail, 1 designates an electric fan including fan blades 2 mounted upon the armature shaft of the motor to rotate with said shaft, and a circular cage 3 inclosing the fan blades. In the present instance, my attachment includes a support composed of a single length of wire 4 bent upon itself between its ends to provide vertical posts 5, then bent outwardly as at 6, at the lower ends of the posts and then upwardly to provide vertical posts 7, spaced apart from the posts 5 and parallel therewith. The wire at the upper end of the post 7 is bent outwardly and upwardly as at 8, and then extended inwardly and upwardly, as at 9, and the upper ends of the portions 9 are formed to provide hooks 10 that engage the ring of the cage to hold the wire against the outer face of the cage.

11 designates a plate having a straight edge 12 and an irregular edge 13, and the irregular edge 13 is formed with notches 14 suitably spaced apart along such edge. This plate 11 is arranged horizontally and the straight edge is placed against the posts 5 and 7, and secured astride the plate and projecting outwardly therefrom is a handle 15 formed of a length of wire bent upon itself between its ends and having the extremities thereof outturned, as at 16, and arranged contiguous to the straight edge 12 at the center of the latter. These out-turned ends 16 embrace the posts 5 and act to hold the plate 11 hingedly to the wire support 4. The deflector blades are indicated at 17, and, in the present instance, are four in number, and each blade 17 is formed with an irregular cross slot 18 at the center thereof, and this slot 18 opens onto one edge of the deflector blade, as clearly illustrated in Fig. 4 of the drawings. The edge of the plate 17 contiguous to the slot 18 is formed with outwardly extending wings 19 arranged at opposite sides of the slot 18, respectively.

In the use of the attachment, the support 4 to which the plate 11 is connected is secured to the cage of the fan, as previously described. The slots 18 of the blades 17 are now slipped over the plate 11 and the wings 19 on the blades bent around the posts 5 and 7, respectively, thereby pivotally connecting the blades to the posts. In the application of the blades to the posts the plate 11 is raised slightly by the handle 15, so that the outer edge of the plate will be freed of the walls of the slots 18 in the blades 17, thereby enabling the blades to be connected to the posts with ease and convenience. After the blades have been connected to the posts, the plate 11 may be released and will return to its original position, so as to hold the

blades 17 against swinging movement on the posts. To adjust the blades the plate 11 is raised and the blades swung relatively to the plate 11 into alinement with one of the notches 14, and on the release of the plate the walls of the notch bind against the corresponding wall of the slots 18 in the respective blades 17, owing to the irregularities in the curved edge of the plate 11 and the slots 18, thereby holding the blades in adjusted position, so that the air from the fan will be deflected in the desired direction.

The upper and lower edges of each blade 17 are preferably curved, as illustrated.

It will be seen that I have provided an attachment for fans whereby the air blown out by the fan may be deflected in several directions, thereby enabling such air to be distributed over a relatively large area.

While I have herein shown and described the preferred form of my invention by way of illustration, I wish it to be understood that I do not limit or confine myself to the precise details of construction herein described and delineated as modification and variation may be made within the scope of the claims and without departing from the spirit of the invention.

I claim:—

1. The combination with a fan, of a support connected to the cage of the fan, blades pivotally connected to said support and arranged side by side, the rear edges of said blades being formed with irregular slots, and a plate hinged to said support and disposed within said slots and having notches in its front edge engageable in such slots to hold the blades in adjusted position.

2. The combination with a fan, of a support connected to the cage of the fan, blades pivotally connected to said support and arranged side by side and capable of adjustment to different angular positions to deflect the air from the fan, the rear edges of said blades being formed with irregular slots, respectively, and a plate secured to said support and disposed within said slots and having an irregular edge engageable in such slots to hold the blades in adjusted position.

3. The combination with a fan, of a support connected to the cage of the fan, blades pivotally connected to said support and arranged side by side and capable of adjustment to different angular positions to deflect the air from the fan, the rear edges of such blades being formed with irregular slots, respectively, a plate secured to said support and disposed within said slots and having an irregular edge engageable in such slots to hold the blades in adjusted position, and means for moving said plate to release said blades so that the latter may be adjusted.

4. The combination with a fan, of a support connected to the cage of the fan and having upright posts, blades pivotally connected to said posts and arranged side by side and capable of adjustment to different angular positions to deflect the air from the fan, the rear edges of such blades being formed with irregular slots, a plate having a straight rear edge hinged to said support, its body disposed within said slots and having an irregular front edge engageable in said slots to hold the blades in adjusted position, and a handle for moving said plate to release said blades so that the latter may be adjusted.

In testimony whereof I affix my signature.

EDWARD M. HANSLEY.