

No. 676,260.

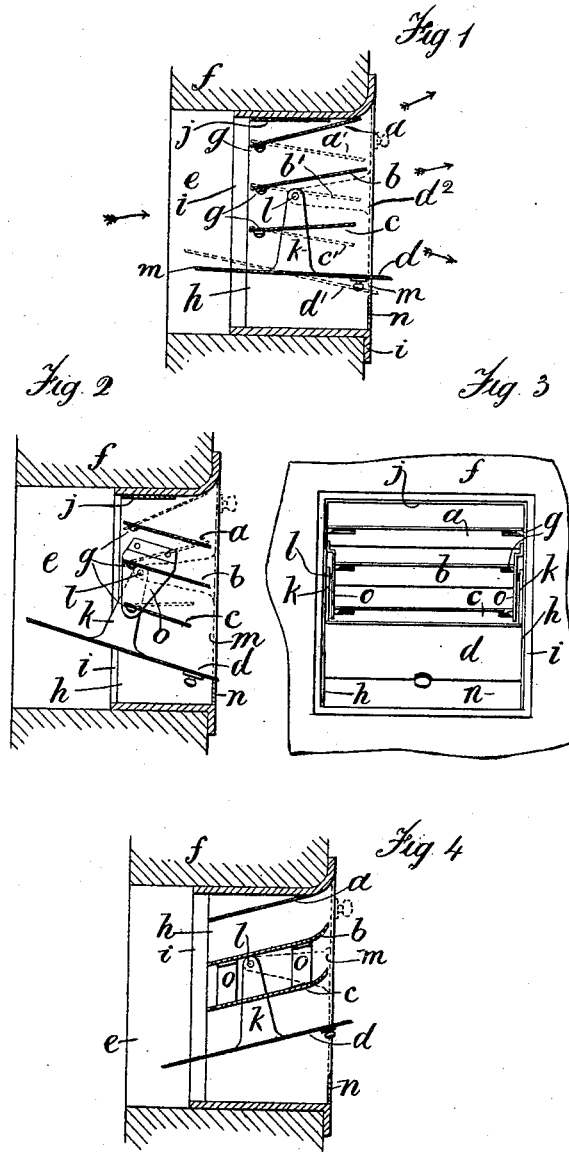
W. B. JOHNSON.

Patented June 11, 1901.

VENTILATOR.

(Application filed Aug. 8, 1900.)

(No Model.)



Witnesses

E. Owen.

W. Owen

Inventor

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WILLIAM BURGELAND JOHNSON, OF LIVERPOOL, ENGLAND.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 676,260, dated June 11, 1901.

Application filed August 8, 1900. Serial No. 26,250. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BURGELAND JOHNSON, a subject of the Queen of Great Britain, residing at Liverpool, in the county of Lancaster, England, have invented new and useful Improvements in Ventilators, of which the following is a specification.

The object of the invention is to provide a ventilator by which when open or partly open air entering a room may be deflected in any desired direction and which when closed will present a flush or level surface to the interior of the room without ledges or recesses whereon dust may collect. I attain this object by appliances such as are illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section of a ventilator constructed according to my invention. Fig. 2 is a longitudinal section of a modification of ventilator under my invention. Fig. 3 is a back view of Fig. 2. Fig. 4 is a longitudinal section of another modification.

Like letters indicate similar parts in all the views.

Referring to Fig. 1, *a b c d* are vanes or plates fitted within an air passage or opening *e* through the wall *f* of the room or space to be ventilated. *g* represents pivots on which the vanes *a b c* can be turned in order that such vanes can be disposed either at any uniform angle or at various angles, as desired, so that air entering in the direction of the arrows may be deflected either fanwise to diffuse it widely or in straight lines to direct it to a particular place, as desired. The pivots *g* are preferably fitted into pieces *h*, placed at each side of and movable into or out of a box *i*, so that such side pieces and the vanes may be easily removed for cleaning. The side pieces *h* are connected together by a piece *j*. The box *i* is fitted into the opening *e* in the wall. The pivots *g* are preferably fitted so tight that the vanes will remain at any angle at which they may be placed, or instead of tightly-fitting pivots any convenient catch or frictional device may be used to retain the vanes at the desired angles. The vane *d* is provided at the sides with arms *k*, pivoted to the sides *h* at *l*. The position of the pivot *l* is so arranged relatively to the plane of the vane *d* that when it is desired to completely

close the ventilator the vane *d* can be moved into the position shown by dotted lines *d*² flush or level with the outer face of the box *i*. The lower edge *m* of the vane *d* rests when closed against a vertical stop or closing piece or plate *n*, secured to the sides *h* and flush with the outer face of the box *i*. The vane *d* may be retained in any desired position between closed and full open by means of any usual frictional device or catch. The vanes *b* and *c* are cut away at the sides, so that in whatever position they may be placed free motion of the arm *k* will be allowed for opening or closing the ventilator by the vane *d*. By placing the vanes *a b c d* in the position shown by solid lines the air is diffused fanwise and by placing them as shown by dotted lines *a' b' c' d'* the air is directed downward in straight lines.

Referring to Figs. 2 and 3, in this modification the vanes *b* and *c* are pivoted on brackets *o*, secured to the sides *h* and projecting so much as to allow of free motion of the arms *k* underneath such brackets. The other parts of the ventilator and the action are the same as in Fig. 1.

Referring to Fig. 4, in this modification the vanes *a b* are fixed to the sides *h*, and the vane *c* is not fixed at the ends, but is supported by brackets *o* from the vane *b*, by which brackets the ends of the vane *c* are held at such distance from the sides *h* as to allow motion of the arms *k*, connected to the vane *d*. The flush front of the vane *d* allows of ornamentation, so as to present a pleasing appearance when the ventilator is closed.

What I claim, and desire to secure by Letters Patent is—

1. In a ventilator, the combination with an air-passage, of several vanes secured to the sides of the passage at one end thereof, the lowest one of said vanes being made flat and provided with arms pivoted at their extremities to the sides of the air-passage, the other vanes being supported clear of the said arms, and a vertical stop-plate for the lower edge of the armed vane, said stop-plate and armed vane being arranged to be substantially flush with the edge of the air-passage when closed; substantially as described.

2. In a ventilator the combination with an air-passage of several independently-pivoted

vanes at one end thereof, one of the vanes
being connected to its pivots by arms, at least
one of the other vanes being mounted on
brackets arranged to allow free motion of
5 the said arms, and a vertical stop-plate for
the lower edge of the armed vane, substan-
tially as described.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

WILLIAM BURGELAND JOHNSON.

Witnesses:

E. OWEN,

W. OWEN.