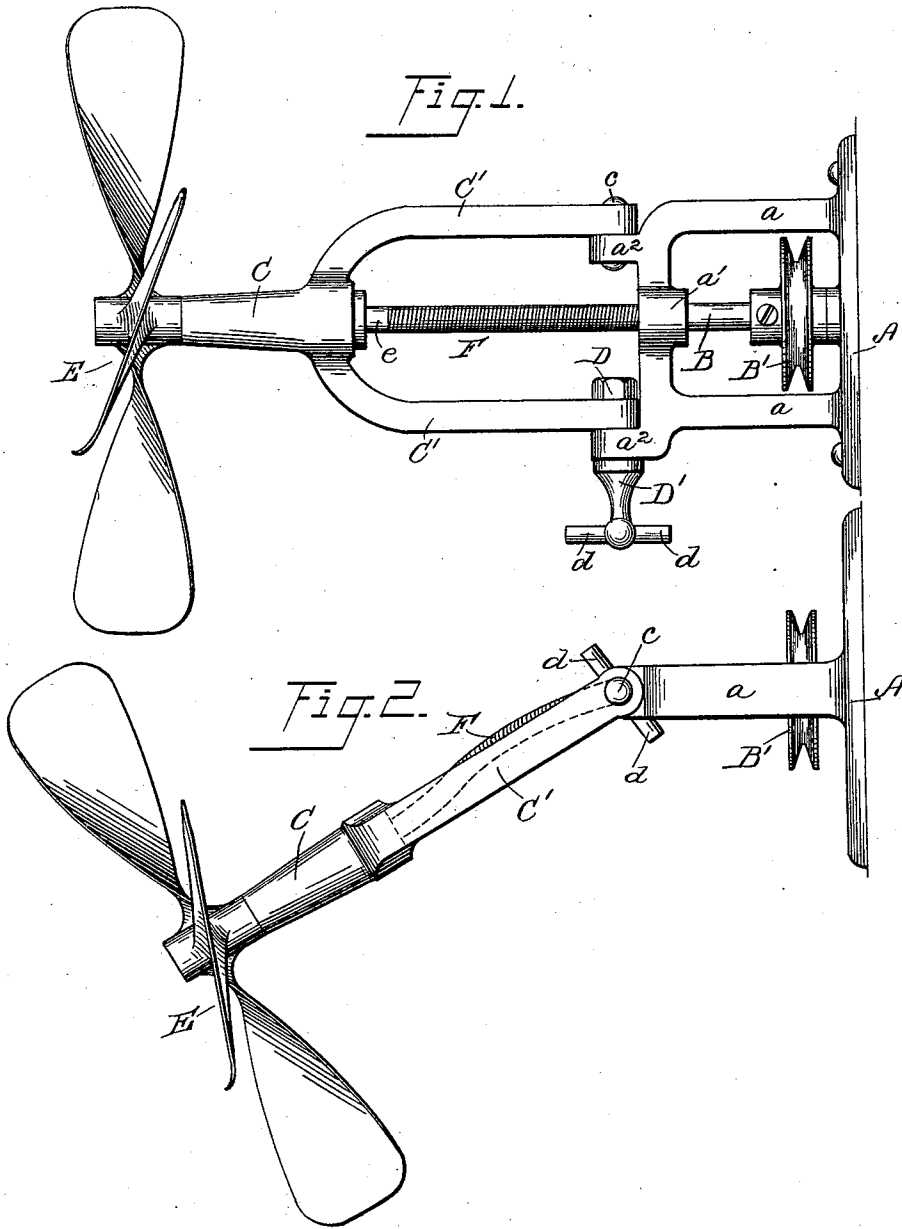


(No Model.)

H. HOBBS.
VENTILATING FAN.

No. 521,114.

Patented June 5, 1894.



Witnesses.
M. M. Miles
August W. Fries

Inventor
Horace Hobbs.
By John E. Miles.
Attorney

UNITED STATES PATENT OFFICE.

HORACE HOBBS, OF MILWAUKEE, WISCONSIN, ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-HALF TO AUGUSTUS W. FRIESE, OF SAME PLACE.

VENTILATING-FAN.

SPECIFICATION forming part of Letters Patent No. 521,114, dated June 5, 1894.

Application filed March 23, 1893. Serial No. 467,261. (No model.)

To all whom it may concern:

Be it known that I, HORACE HOBBS, a citizen of the United States, residing at Milwaukee, county of Milwaukee, State of Wisconsin, have invented a certain new and useful Improvement in Ventilating-Fans; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to new and useful improvements in ventilating fans, and consists in the matters hereinafter described and pointed out in the appended claims.

In the accompanying drawings illustrating my invention Figure 1. is a side elevation of a device constructed in accordance with my invention. Fig. 2. is a top plan view of the same showing the fan adjusted so as to direct a current of air in an oblique direction.

Referring by letter to the drawings:—A represents a suitable supporting bracket adapted for engagement with the wall or any other desired support, and provided with projecting arms a , which extend to a convenient distance from the wall or other support, and are connected at their outer ends by a suitable vertically disposed piece a' . The drive shaft B, carrying a suitable driving pulley B' is journaled at one end in the base A of the bracket, and at its other end has a bearing in the vertical piece a' , being arranged to extend slightly beyond the outer surface of said cross piece to afford means for engagement with the fan shaft. Suitable horizontal extensions a^2 are provided at the outside of the cross piece a' , and the fan support C is provided with two horizontally disposed arms C' C' having pivotal engagement with said extensions a^2 so as to enable the fan to be adjusted to direct a current of air at right angles to the surface of the wall, or in a direction oblique thereto as desired. As illustrated more particularly in Fig. 1. of the drawings, the connection between one of the arms C' and the extension a^2 is made by means of a suitable pivot c , while the other arm C' is engaged with the corresponding extension a^2 by means of a bolt

D passed through said arm and said extension, and engaged with a nut D' in the manner shown, suitable lateral thumb pieces d serving to enable the user to securely fasten the said parts in their adjusted positions. The shaft e upon which the fan E is secured, extends somewhat past the inner face of the support C, between the arms C' C', and has a flexible engagement with the outer end of the drive shaft B, in any suitable or desired manner. In the form of construction illustrated in Fig. 1, this connection is made by means of a flexible shaft F which is of familiar construction, and is secured at opposite ends to the ends of the two shafts B and e .

Power is applied to the drive shaft B in any desired manner, and motion is communicated in an obvious manner to the flexible connection and the fan shaft e , so as to operate the fan. If it is desired to have the fan direct the current of air at right angles to the wall upon which the bracket is fastened, the fan support is adjusted in an obvious manner so as to bring the shaft e into a straight line with the drive shaft B, when the flexible shaft F, will run true with said shafts e and B. If, however, it is desired to cause the fan to direct the current of air obliquely, the fan support may be adjusted in the manner described, so as to bring the fan shaft e to any desired angle with the drive shaft B, as in Fig. 2, when the rotation of the said drive shaft will be communicated through the medium of the flexible shaft to the fan shaft in an obvious manner.

Ventilating fans as heretofore constructed, have been commonly supported upon shafts journaled in stationary bearings in the supporting frame or bracket, and hence, are adapted to deliver a current of air in one direction only, but it is often very desirable to adjust the fan so as to deliver the current of air in a particular direction other than in line with the drive shaft.

By my improvement, I am enabled to construct a ventilating fan which is capable of adjustment to enable it to deliver a current of air either in line with the drive shaft or at any desired angle thereto, and the supporting bracket may be permanently secured to the wall or other support, and the adjustment of

the fan obtained by simply loosening the set nut to free the fan support, and then turning said fan support upon its pivotal connections with the bracket and tightening the set nut so as to hold the parts in their adjusted positions.

My improved device is at once exceedingly simple in construction, cheap and durable, and not liable to get out of order.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination with a suitable bracket provided with means for attachment to a wall or other stationary support, and having horizontally disposed journal bearings therein, a drive shaft journaled in said bearings and carrying a drive pulley, a yoke or frame pivotally engaged with the outer part of said bracket and provided in its outer end with a bearing, a shaft journaled in said bearing and carrying a fan, and a universally flexible shaft connecting the adjacent ends of the drive shaft and the fan shaft, substantially as described.

2. The combination with a suitable bracket provided with means for attachment to a wall or other stationary support, and having horizontally disposed journal bearings therein, a drive shaft journaled in said bearings and carrying a drive pulley, horizontal extensions upon the bracket above and below the outer end of the drive shaft, a bifurcated yoke provided at its outer end with a journal bearing,

and having its inner ends pivotally engaged with the horizontal extensions upon the bracket, a shaft revolubly supported in the journal bearings in said yoke and carrying a fan at its outer end, and a universally flexible shaft connecting the inner end of the fan shaft with the outer end of the drive shaft, substantially as described.

3. The combination with a suitable bracket provided with means for attachment to a wall or other stationary support, and provided with horizontally disposed journal bearings, a drive shaft journaled in said bearings and carrying a drive pulley, horizontal apertured ears upon the outer end of the bracket and located above and below the outer end of the drive shaft, a bifurcated yoke provided at its outer end with a journal bearing, a shaft journaled therein and carrying a fan at its outer end, pivotal connections between the apertured ears upon the bracket and the ends of the bifurcations of the yoke, a set screw for securing said yoke in an adjusted position with respect to the bracket, and a universally flexible shaft connecting the inner end of the fan shaft and the outer end of the drive shaft, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

HORACE HOBBS.

Witnesses:

JOHN E. WILES,
AUGUSTUS W. FRIESE.