H. JACKSON.

AUTOMATIC FAN.

APPLICATION FILED APR. 21, 1917.

1,276,225.

Patented Aug. 20, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

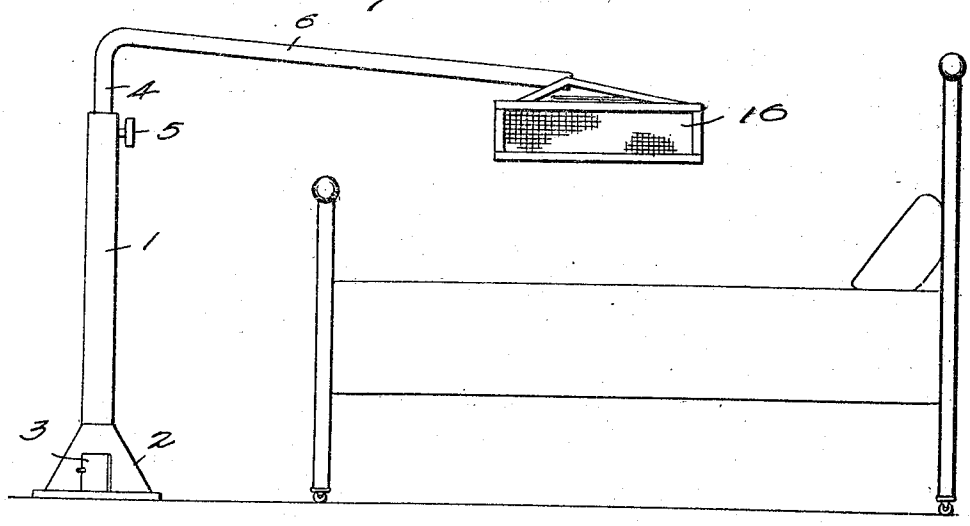
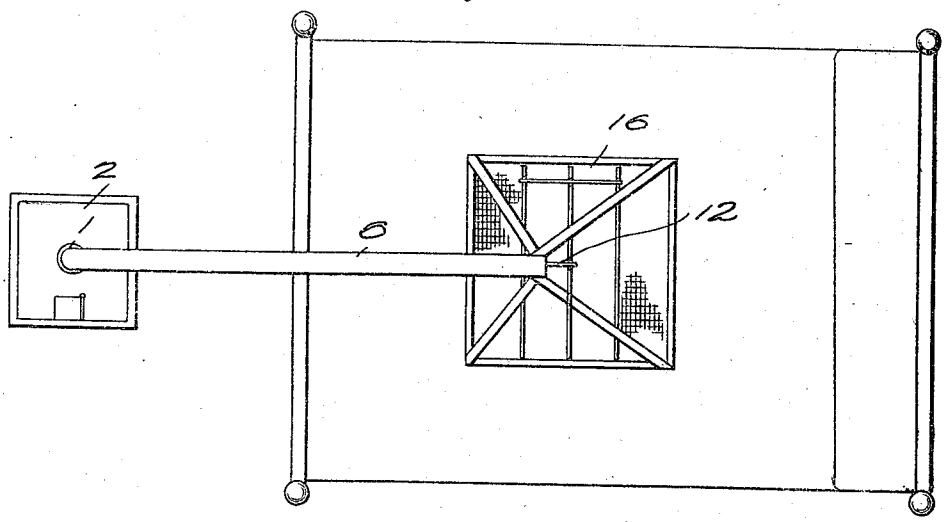


Fig. 2.



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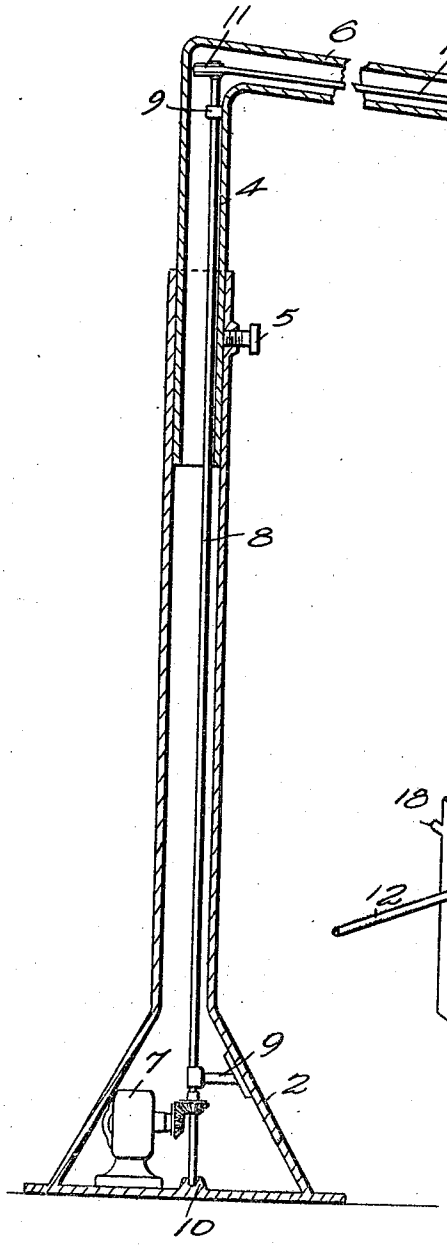
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2 SHEETS—SHEET 2.

Fig. 3.



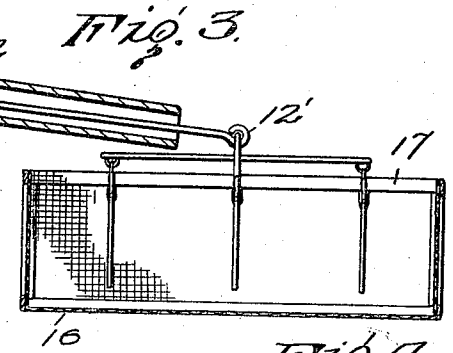


Fig. 4.

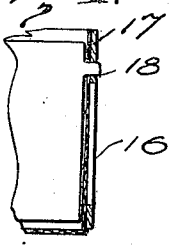
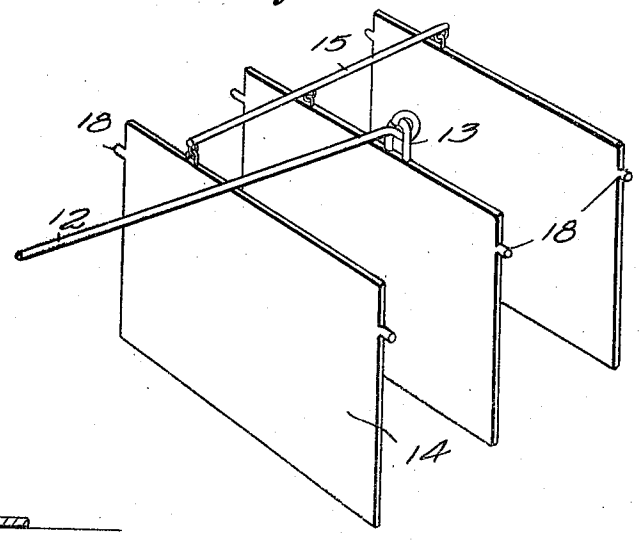


Fig. 5.



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UNITED STATES PATENT OFFICE.

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AUTOMATIC FAN.

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To all whom it may concern:

Be it known that I, HENRY JACKSON, a citizen of the United States, and resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Automatic Fans, of which the following is a specification.

This invention relates to improvements in automatic fans and it is the dominant object of the invention to provide a fan particularly adapted for use in conjunction with beds and like supports, whereby a cooling draft will be directed onto the occupants thereof; the device being especially desirable for use in convalescent wards of hospitals, etc.

Another and equally important object of the invention is to provide a novel support for the fan structure in order that the positioning of the same may be readily varied.

Among other aims and objects of the invention may be recited, the provision of a device of the character mentioned with a view to compactness, and in which the number of parts are few, the construction simple, the cost of production small, and efficiency and operation high.

Other improvements and novel details in the construction and arrangement of the various parts of the device will be brought out more in detail in the description to follow, which for a clear understanding of the invention should be considered in connection with the accompanying drawings forming a part hereof and wherein is disclosed for the purpose of illustration a convenient and satisfactory embodiment of the invention.

In the drawings:

Figure 1 is a side elevation of the improved fan in operative position;

Fig. 2 is a top plan thereof;

Fig. 3 is a vertical section through the same, parts of the support being broken away;

Fig. 4 is fragmentary detail in section showing the mounting of the fan blades within the air directing dome; and

Fig. 5 is a detail in perspective of the fan blades and their connection with the operating means therefor.

Referring now more specifically to the several figures of the said drawings and in connection with which like reference numerals will refer to the same parts, there is provided an upright hollow standard 1, the base of which is enlarged as at 2 and provided with an opening normally closed by means of a door 3 whereby access may be had to the operating mechanism of the fan, which will be hereinafter more fully described. A second hollow standard 4 is employed and has the lower extremity thereof telescopically engaged with the upper extremity of the standard 1 and locked in adjusted position with relation thereto by means of a set screw 5 turned into engagement with a suitable screw threaded opening formed within the said standard 1 and adapted to bear upon a portion of the lower extremity of the same. A laterally extending portion 6 is formed upon the upper portion of the standard 4 and is of a length to permit the arranging of the fan structure conveniently over the object upon which the cooling draft is to be directed.

Within the enlarged base portion 2 of the standard 1 a motor 7 is arranged and is intergeared with a vertically disposed shaft 8 extending through the said standard 1 and the upright portion of the standard 4 to a point adjacent its junction with the lateral extension 6. To support the shaft 8 properly within the standard 1 and 4 bearing brackets 9 are secured to the side walls of the same and obviously, receive portions of the said shaft therethrough, while the lower extremity of the shaft is journaled within a bearing 10 formed concentrically of the bottom of the enlarged base 2. Upon the upper extremity of the shaft 8 there is mounted an eccentric 11 having connection with a pitman 12, the free extremity of which is arranged beyond the lateral extremity 6 and is looped as at 12 about a staple 13 or like connection arranged upon the upper marginal edge of one of the fan blades 14, preferably, the intermediate blade, as shown in the Fig. 5. A connecting rod 15 having eyelets arranged thereon throughout its length is engaged with the remaining blades and causes the transmission of motion from the intermediate blade to the remaining blades.

A hood or dome 16 comprising a substantially rectangular foraminated structure is arranged about the various fan blades 14 and is provided with, at the upper portion thereof, a band 17 having a plurality of bearing openings formed therein at suitable

intervals whereby trunnions 18 arranged upon the opposite sides of the fan blades 14 may be mounted therein.

In operation, motion will be transmitted from the motor 7 by way of the shaft 8 and the pitman 12 to the various fan blades 14, thereby, causing oscillation of the same and directing a cooling draft onto the object over which the hood 16 is positioned. To vary the positioning of the hood 16 with relation to an object, the standard 4 may be raised or lowered within the standard 1 by loosening the set screw 5. Further, rotation of the said standard 4 will be permitted to allow the proper positioning of the hood over the desired object.

It is to be understood, that various forms of operating means may be employed in lieu of the motor 7, such as conditions or preference may dictate and also, that the hood 16, if desired, may be braced in its position with relation to the free extremity of the lateral extension 6 by suitable truss wires or the like, thus, insuring the accurate directing of the cooling draft onto an object.

As above indicated, I do not wish to be understood as confining the invention to the particular embodiments chosen for illustration herein, nor to the exact construction, arrangement and adaptation of the parts shown and described, but I reserve the right to make any changes and alterations that fairly fall within the spirit and scope of the invention.

I claim:

In combination an automatic fan, a support, a plurality of interconnected blades pivotally connected to said support, bearing pintles formed integral with a marginal side portion of the blades, a foraminated hood engaged with said pintles, operating means arranged in the support, and means extending from said operating means into engagement with one of said blades for oscillating all of the same.

In testimony whereof, I affix my signature hereto.

HENRY JACKSON.

Witness:
GEORGE JACKSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."