(No Model.)

D. M. BLISS.

FLUE FAN.

No. 262,360. Patented Aug. 8, 1882.

fig. 1.

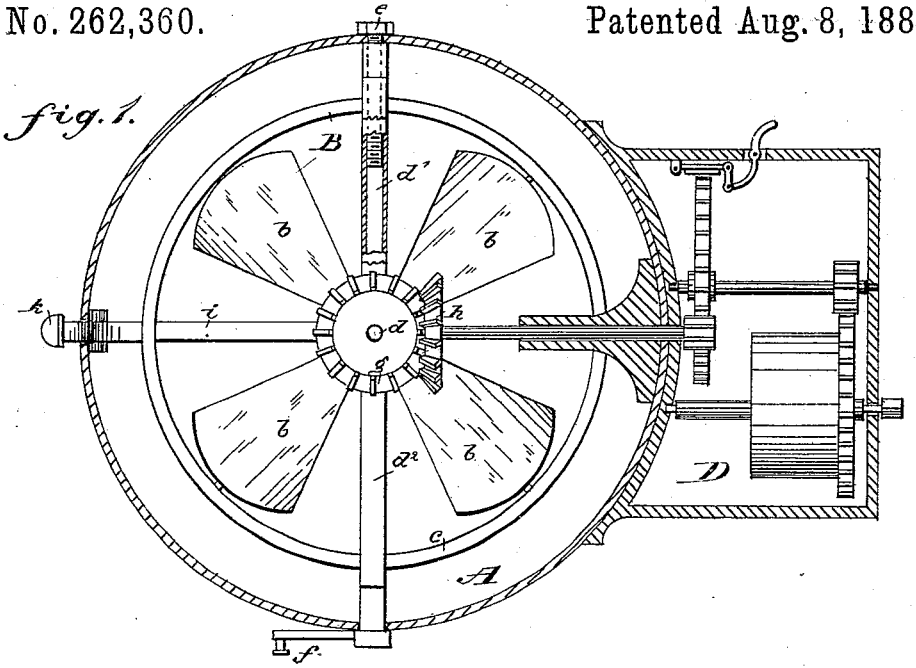


fig. 2.

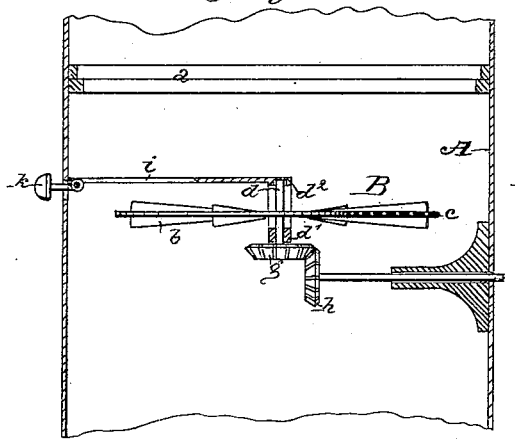
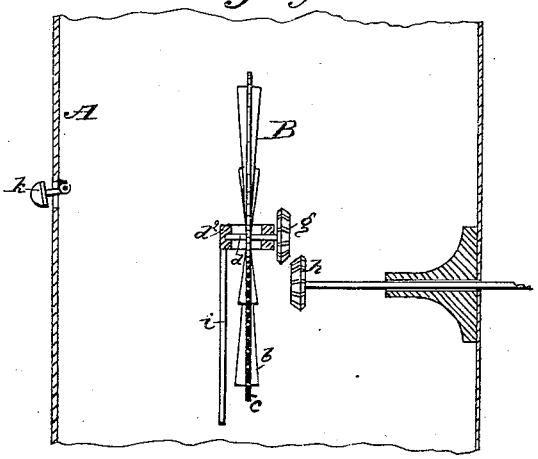


fig. 3.



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DONALD M. BLISS, OF WESTMORELAND POINT, NEW BRUNSWICK, CANADA.

FLUE-FAN.

SPECIFICATION forming part of Letters Patent No. 262,360, dated August 8, 1882.

Application filed May 31, 1882. (No model.)

To all whom it may concern:

Be it known that I, DONALD M. BLISS, of Westmoreland Point, in the county of Westmoreland, Province of New Brunswick, and Dominion of Canada, have invented a new and useful Improvement in Flue-Fans, of which the following is a full, clear, and exact description.

The object of my invention is to improve or quicken the draft in flues of stoves and furnaces by artificial means for starting a fire or producing a quick hot fire with any kind of fuel.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional and inverted plan view of my improved flue-fan, as applied in connection with a stove-pipe. Fig. 2 is a sectional side view of the same. Fig. 3 is a sectional side view, showing the fan in the position in which it is to be placed when not required for use.

A is a section of stove-pipe carrying the fan, and adapted for connection in a line of stove-pipe, and provided at its ends with rings *a*, of varying thickness, placed upon the inside of the section A, so that it can be made to fit smaller sizes of stove-pipe.

B is the fan, consisting of blades *b* and outer ring, *c*, and attached on an axle, *d*, that has bearings in a cross-bar, d^2, that is fitted across the pipe A. This cross-bar d^2 is made double, as shown in Fig. 2, so that the fan runs between its two sides, and the bar is supported in the pipe A by a pivot-screw, *e*, at one end, and at the other end the bar passes through the pipe and is bent to form a handle, *f*, which is used for turning the bar when it is desired to throw the fan in a vertical position. The hole in the bar d^2 for the pivot-screw *e* is bored through to the axle of the fan, so that the axle may be oiled on removing the screw. Upon the axle of the fan is a beveled-cog wheel, *g*, meshing with a similar wheel, *h*, that is on the end of a horizontal shaft, that projects into the pipe from the case D, which is to contain clock-work of any suitable character for rotating the shaft *h*. This clock-work may be arranged to run any desired length of time, and will be provided with a suitable stop for arresting its movement.

The fan is operated when in its horizontal position, and to hold it securely in that position the cross-bar *d* is povided, with the side arm, *i*, extending at right angles to the side of the pipe A, where it is held by spring-catch *k*, that may be operated from the outside for release of the arm. To turn the fan into a vertical position when not required for use the catch *k* will be moved to release the arm *i*, and then by means of the handle *f* the cross-bar can be turned and the fan thus turned upright. In this position it will not interfere with the ordinary draft in the stove or furnace. When required for use, either to increase the ordinary draft or in starting a fire, the fan will be turned in a horizontal position, and, being put in motion by the clock-work, will act to draw the air upward, and thus create an artificial draft of great strength.

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

1. The rotary fan B, supported in pipe A by the cross-bar d^2, and fitted for operation by clock-work contained in the case D at the side of the pipe, substantially as shown and described.

2. The combination of the fan B, pivoted to cross-bar d^2, provided with handle *f*, the arm *i*, and catch *k* with the pipe A, substantially as shown and described.

3. The supporting-bar d^2, formed with the longitudinal aperture d', for receiving the pivot-screw *e*, and for use in oiling a fan, substantially as described.

DONALD MACQUEEN BLISS.

Witnesses:
D. M. BLISS,
THOS. E. OULTON.