(No Model.)

J. M. SEYMOUR.

COLUMNAR FAN.

No. 332,446. Patented Dec. 15, 1885.

Fig. 2.

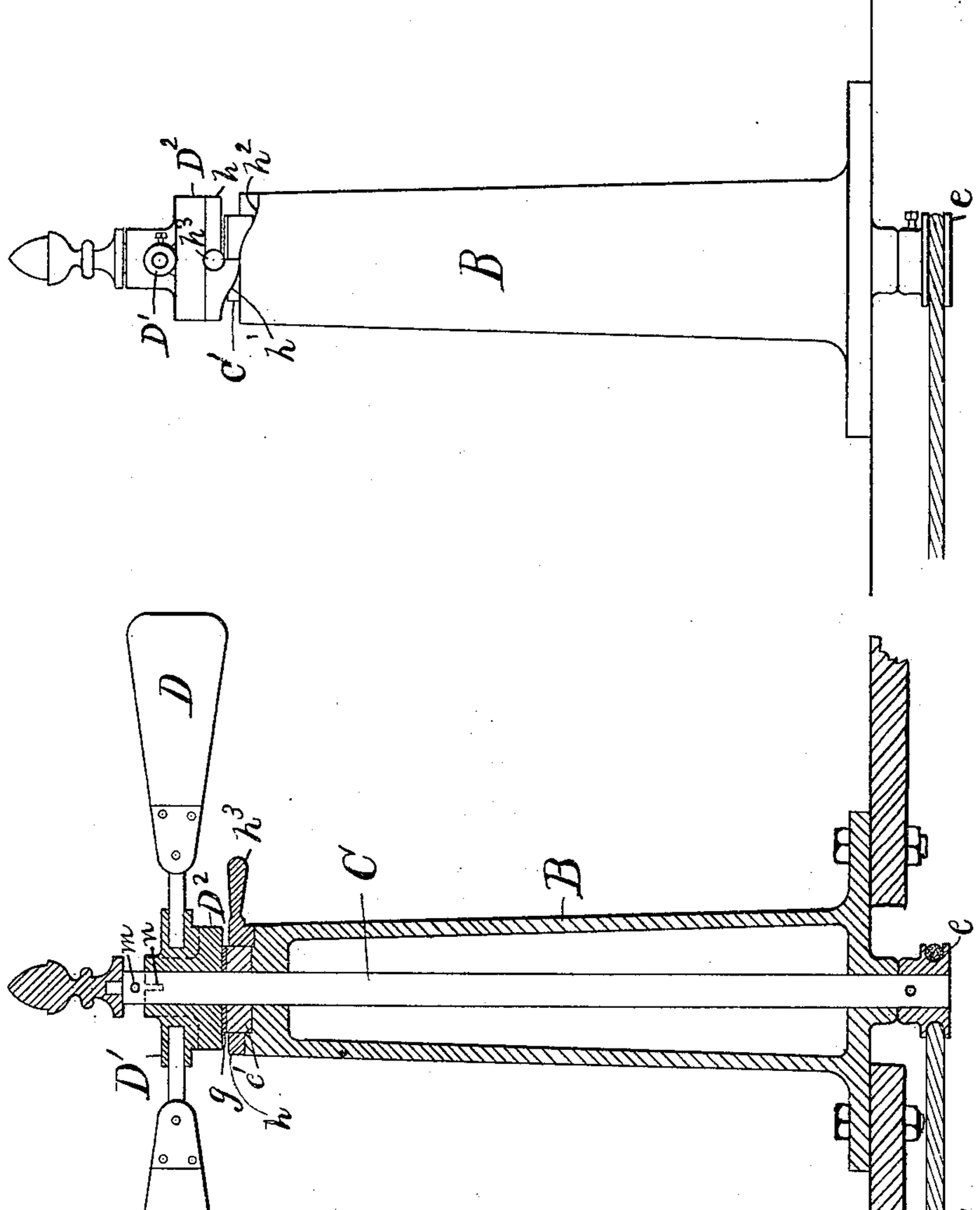
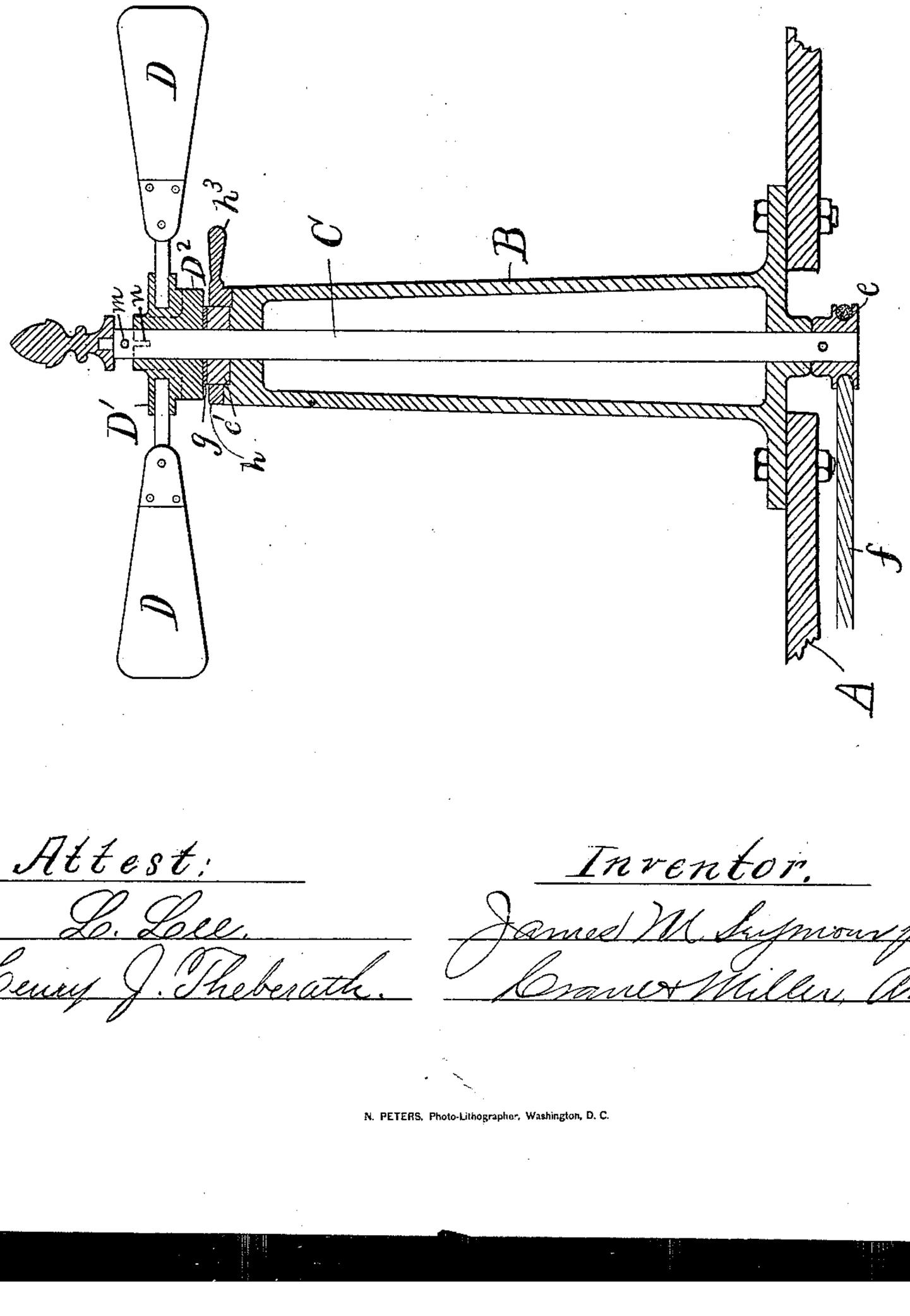


Fig. 1.



Attest:

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UNITED STATES PATENT OFFICE.

JAMES M. SEYMOUR, OF NEWARK, NEW JERSEY.

COLUMNAR FAN.

SPECIFICATION forming part of Letters Patent No. 332,446, dated December 15, 1885.

Application filed July 18, 1885. Serial No. 171,941. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. SEYMOUR, a citizen of the United States, residing in Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Columnar Fans, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention consists in the combination, with a vertical column, of a rotary shaft rotated by a driving mechanism applied to its lower end beneath the floor, a fan applied to the shaft above the column and having its hub fitted to turn loosely thereon, a clutch above the fan-hub upon the shaft, and means for lifting the fan-hub and engaging it with the clutch.

It also consists in a special construction for the clutch and the means for lifting the fan-hub.

My invention is shown in the annexed drawings, in which Figure 1 is a section of a column supporting a fan and the means for clutching it to the shaft, the shaft and fan-blades not being in section; and Fig. 2 is an exterior view of the same, showing the fan-hub and the collar for clutching it positively to the shaft turned ninety degrees from the position shown in Fig. 1, the fan-blades and the floor not being shown.

A is the floor of the apartment in which the fan is to be operated, and beneath which the driving-power is applied to the fan. B is the column; C, a vertical shaft, preferably concealed in the column, and having the fan D at its upper end. The hub D′ of the fan D is fitted loosely to the shaft, and the latter is extended through the column B and floor A to receive the required motion. The shaft has a pulley, *e*, secured to its lower end, said pulley being driven continuously by means of the belt *f*, below the floor, the gravity-driver and positive clutch being applied to the fan-hub above the top of the column.

The gravity-driver consists in a disk or driver, *e′*, secured to the shaft beneath the hub of the fan, which latter is expanded to form a disk, D^2, adapted to rest upon the driver, and extend somewhat beyond the edge of the same, as shown in Fig. 2. A leather washer, *g*, is interposed between these surfaces, and the weight of the fan generates sufficient friction with the rotating driver and washer to turn the fan slowly around and drive away flies or insects without producing any perceptible wind. By this construction the fans may be used to keep the apartment free from insects when the temperature does not require their use for ventilating purposes. Such construction for rotating the fan by a light frictional contact is not claimed herein, as I have filed a separate application, No. 135,525, therefor. A notch, *n*, is formed in the upper end of the fan-hub, and a clutch-pin, *m*, is inserted across the shaft just above the hub, so that when it is desired to clutch the hub positively to the rotating shaft the hub may be pushed upward and the notch be engaged with the clutch-pin. To thus lift the hub a collar, *h*, is adjusted to the top of the column outside of the driver *e*, and is provided with inclines *h′* upon its under side, fitted to inclined seats h^2 in the top of the column. A handle, h^3, is affixed to the collar *h*, by means of which it may be turned, as shown in Fig. 2, and its upper side thereby raised so as to press upon the outer margin of the disk D^2, and force the hub up against the pin *m*. The fan then rotates with the same speed as the shaft, but when unclutched therefrom, by turning the collar *h* backward, is driven slowly around by the friction induced by its weight pressing upon the driver *e*.

It is obvious that the collar *h* may be used without the disk *e* for clutching the fan-hub to the pin above it, and when thus used it simply operates to stop the fan when the collar is turned into its lowest position.

It will be seen from the above description that the essential principle of my invention is the combination, with a supporting-column, a shaft provided with a fan at its upper end and at its lower end, with the power-driver beneath the floor, and clutching mechanism above the top of the column, whereby the fans may be stopped without throwing off the driving-belt.

Having thus set forth the nature of my invention, I claim the same in the following manner:

1. The combination, with a vertical support or column carrying a rotary shaft with a fan fitted to its upper end, of a clutch above the

fan-hub upon the shaft, and means for lifting the fan-hub and engaging it with the clutch, as and for the purpose set forth.

2. The combination, with a vertical support or column carrying a shaft with a fan at its upper end, of a rotary friction-disk beneath the fan, a flange upon the fan-hub to rest upon the disk, a clutch above the fan-hub upon the shaft, and means for lifting the fan-hub from the disk and engaging it with the clutch, as and for the purpose set forth.

3. The combination, with a vertical support or column, B, carrying a shaft, C, with a fan, D, at its upper end, of a clutch above the fan-hub upon the shaft, and the collar *h*, having inclines *h'* fitted to the top of the column, and adapted to raise the collar and fan-hub when the collar is rotated, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JAMES M. SEYMOUR.

Witnesses:

C. C. HERRICK,

HENRY J. MILLER.