

No. 751,341.

PATENTED FEB. 2, 1904.

H. RAYMOND.
FLUE VENTILATOR,

APPLICATION FILED SEPT. 21, 1900.

NO MODEL.

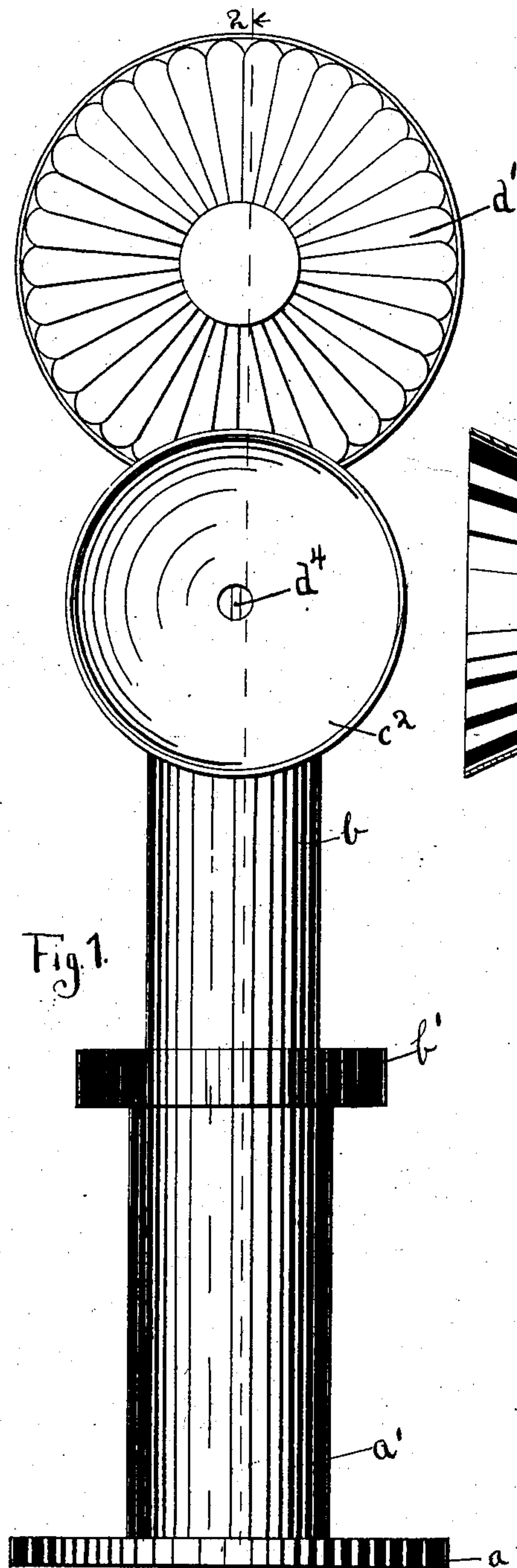


Fig. 1.

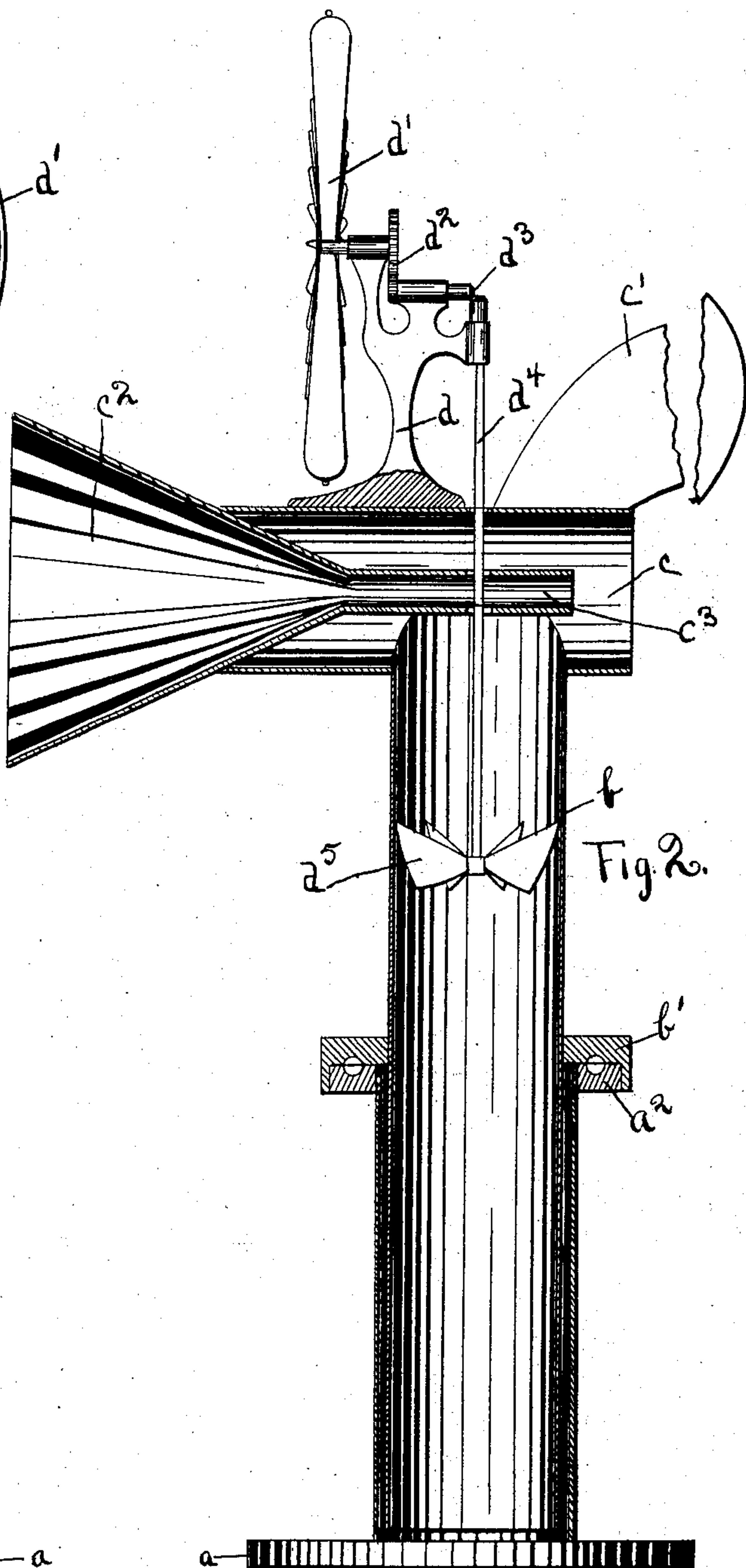


Fig. 2.

WITNESSES:
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HOYT RAYMOND, OF CHICAGO, ILLINOIS.

FLUE-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 751,341, dated February 2, 1904.

Application filed September 21, 1900. Serial No. 30,664. (No model.)

To all whom it may concern:

Be it known that I, HOYT RAYMOND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Flue-Ventilators, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to an improvement in flue-ventilators, my object being to provide improved means for producing an artificial draft in flues.

I have illustrated my invention by reference to the accompanying drawings, in which—

Figure 1 is a front view of the device of my invention. Fig. 2 is a cross-sectional view thereof on line 2 2, Fig. 1.

Like letters refer to like parts in the different figures.

Upon a base or standard a , which is adapted to fit upon the top of a flue or ventilating-pipe, is fitted a pipe a' , having a bearing a^2 at its upper end. Inside of this pipe a' is fitted the pipe b , having the bearing b' , adapted to co-act with the bearing a^2 , so that the pipe b shall be free to turn in any desired direction. Said bearing b' is provided with a depending rim, which overlaps the edge of the bearing a^2 and prevents dirt or water from getting into the bearing and also prevents any possible lateral displacement of the parts. Across the top of this pipe b is secured the tube c , having the vane c' at one end and the funnel-shaped device c^2 at the other. A continuation c^3 of this funnel-shaped device c^2 extends across the mouth of the pipe b . Upon the tube c is fastened the bearing d . In this bearing runs the wind-wheel d' , which operates by means of the pinions d^2 d^3 the shaft d^4 . This shaft d^4 extends down into the pipe b and carries at the lower extremity the suction-fan d^5 .

The operation of my invention is as follows:

The vane c' keeps the opening c^2 constantly facing the wind, and this maintains a constant current of air through c^3 , which tends, by creating a suction, to draw the air from the pipe b and expel it to the exterior of the pipe c . The wind-wheel d' is also kept facing the wind

by means of the vane c' and, being revolved by the wind, operates the fan d^5 , which draws the air up through the pipe b .

Having described my invention, what I claim as new, and what I desire to have covered by Letters Patent, is—

1. In a ventilating device, the combination with a flue, of a rotatable pipe forming a continuation of the upper end of said flue, a second pipe attached to the upper end of said first-named pipe and transversely thereof, said second pipe forming a continuation of the first-named pipe; a funnel-shaped tube having its orifice within said second pipe and adapted to pass a current of air across the mouth of said first pipe to create a suction therein, a fan in said first pipe, a wind-wheel mounted upon said second-named pipe and serving to drive said fan; the said second pipe, funnel-shaped tube and wind-wheel being all rotatable with said first pipe, and a vane carried by said rotatable parts and so arranged as to automatically hold both said funnel-tube and said wind-wheel in proper position with reference to the direction of the wind, substantially as described.

2. In a ventilating device, the combination with a flue having a bearing a^2 at its upper end, a pipe extending into the end of said flue and having intermediate of its ends the co-operating bearing b' adapted to rotatably support the said pipe upon the said flue, said bearing b' having a depending rim adapted to closely overlap the periphery of the bearing a^2 to prevent lateral displacement of the said pipe and to prevent the bearing from rusting or becoming filled with dust and dirt, the lower end of said pipe serving also to prevent the same from becoming displaced from the flue, a second pipe transverse to said first-named pipe and carried upon the upper end thereof so as to form a continuation of the first-named pipe and the flue, a funnel-shaped tube carried within said second pipe and having an enlarged end projecting beyond the end of said second pipe, the inner end of said funnel-shaped tube terminating beyond the center of the first-named pipe so as to direct a current of air over the end of the first-named pipe and thereby create a draft within the flue and

pipe, a fan horizontally disposed within the
first-named pipe, a vertically-disposed shaft
extending upwardly through the first-named
pipe and above the second-named pipe, a wind-
5 wheel mounted upon the top of said second-
named pipe and facing in the same direction
as the funnel-shaped tube, said wind-wheel
being geared to the upper end of said shaft to
rotate the same and thereby operate said fan,
10 and a vane carried by said second-mentioned

pipe and serving to hold the wind-wheel and
the funnel-shaped tube toward the wind, sub-
stantially as described.

In witness whereof I have hereunto sub-
scribed my name in the presence of two wit- 15
nesses.

HOYT RAYMOND.

Witnesses:

HENRY W. BELFIELD,
W. CLYDE JONES.