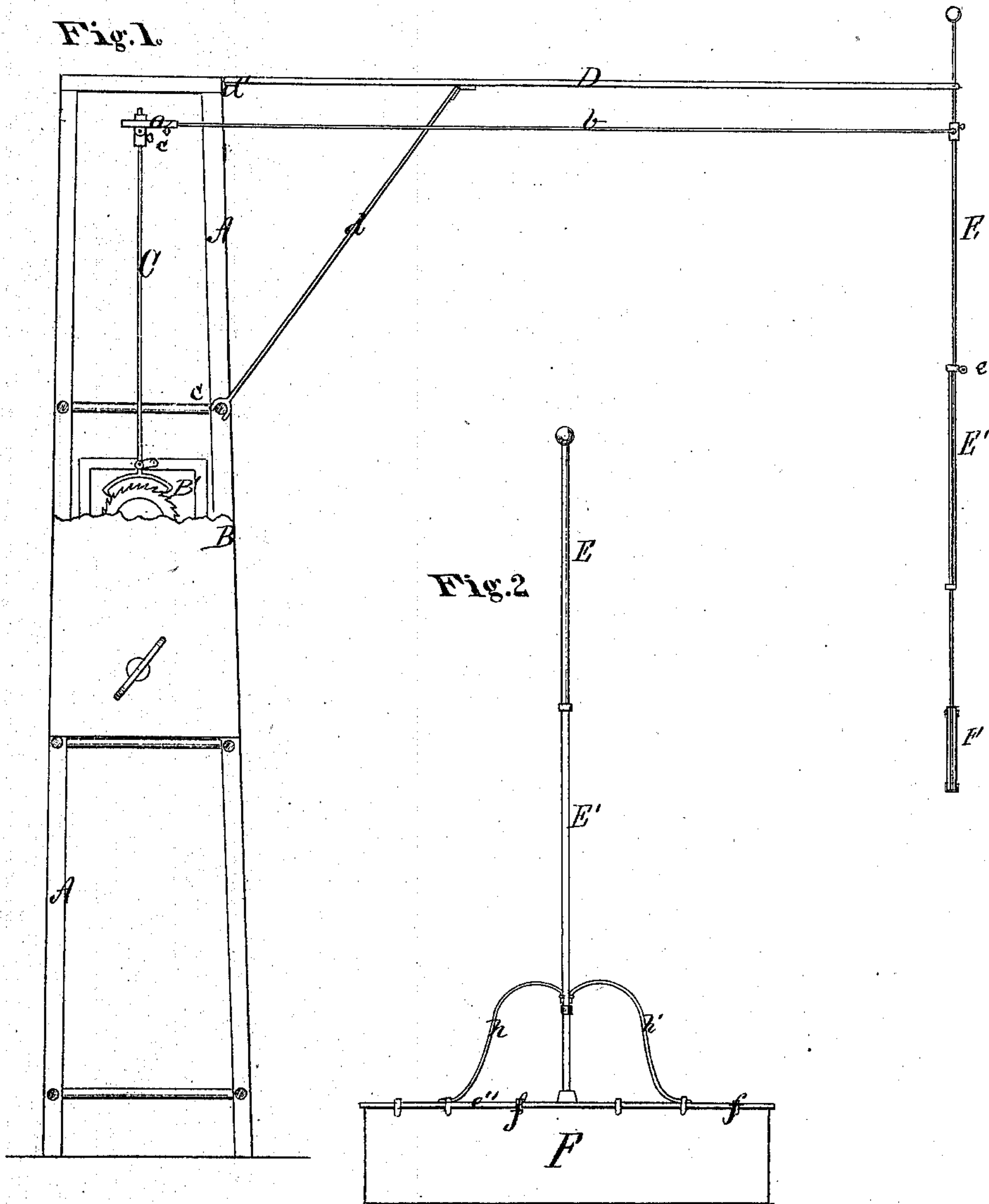


*C. B. Smith,*  
*Automatic Fan.*

*No. 112,293.*

*Patented Feb. 28. 1871.*



*Witnesses:*  
*Cha. Kemper*  
*Villette Anderson.*

*Inventor:*  
*C. B. Smith*  
*Chipman & Osmer & Co.*  
*Attorneys.*



# United States Patent Office.

CHARLES BRIDGES SMITH, OF GRIFFIN, GEORGIA.

Letters Patent No. 112,293, dated February 28, 1871.

## IMPROVEMENT IN AUTOMATIC FANS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, CHARLES BRIDGES SMITH, of Griffin, in the county of Spaulding and State of Georgia, have invented a new and valuable Improvement in Automatic Fans; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a side view of my fan, with a portion of one side of the clock-case removed.

Figure 2 is a view showing my fan detached.

My invention has relation to automatic fans, and

It consists in the novel construction and arrangement of devices intended to serve as an efficient means for producing an even current of air.

The letter A of the drawing represents a frame, designed to be built of light material, and about seven feet in height.

B represents the clock-work case, and is placed about the middle of the frame A, and contains the clock-work B', which is the motive power. This clock-case is firmly secured to the frame A by suitable fastenings.

The clock-work can be run with either a weight or spring; a spring, however, is usually employed.

Through a small slot in the top of the clock-case passes the vertically-vibrating rod C, which obtains its vibrating motion from the clock-work in the case B. It extends upward within a few inches of the top of the frame A.

The upper end of this rod is secured by a pivot to the lug on the sleeve a.

Through this sleeve is passed one end of the rod b, the other end of which is pivoted to the vertical rod of the fan.

The end in the sleeve is secured by the thumb-screw c, which serves to regulate the length of the rod b.

At the top of the frame A, and on the side facing the fan, is placed the long arm D, which is secured to the frame A by means of the hinge d', and is designed to be folded down when not in use.

To keep it in position when in use the brace d is employed. This is secured to the under side of the arm D by a small hinge. The other end of this brace

is forked, to enable it to engage with the rail c, which passes around the frame A just above the clock-case B.

E represents the vertical-rod, to which the fan is attached. The upper end of this rod is secured to the end of the long arm D by the pivot b, in such a manner as to enable the rod E to swing easily thereon back and forth.

The rod E is constructed to slide easily in the rod E', to which the fan is secured, the height of this fan being regulated by the thumb-screw e.

F represents the fan, which is attached to the rod e' by means of clasps f f.

This fan is usually made of thin cloth or paper, and can be renewed at will by opening the clasps f.

To make the attachment of the rod e' to the rod E' more rigid the bent arms or braces h h' are employed.

The entire frame, as well as the material of which the rods are made, is designed to be as light as possible to secure convenience in moving the machine about the room.

The rods C, E, and E' are preferably made with a certain degree of elasticity, the reaction thus obtained being favorable to the production of currents of wind.

Sometimes, instead of pivoting the rods C and b immediately to the sleeve a and rod E, I prefer to provide at each end of the rod b vertical sleeves z z', respectively pivoted to the rod b and to the sleeve a, in such a manner that these sleeves z z' shall be movable on the rods C and E. The rod b therefore becomes adjustable, and can be raised or lowered to lengthen or shorten the fan-stroke, as may be desired.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The fan-motor herein described, consisting of the clock-work B', the vertically-vibrating rods C and E, the adjustable horizontal connecting-rod b, and the adjustable fan-slide E', when constructed and arranged to operate substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES BRIDGES SMITH.

Witnesses:

J. D. DUNN,

S. W. MANGHAM.