

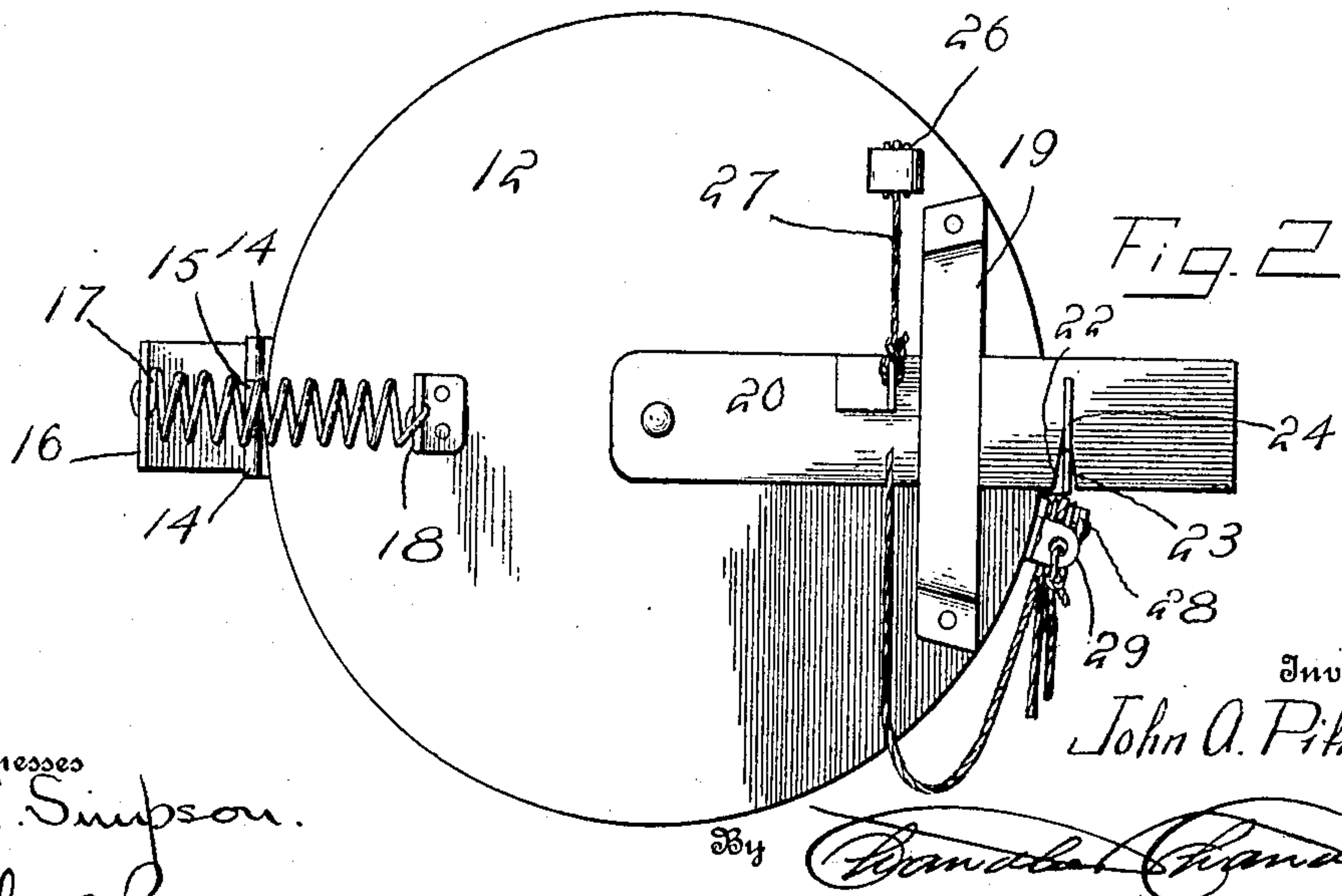
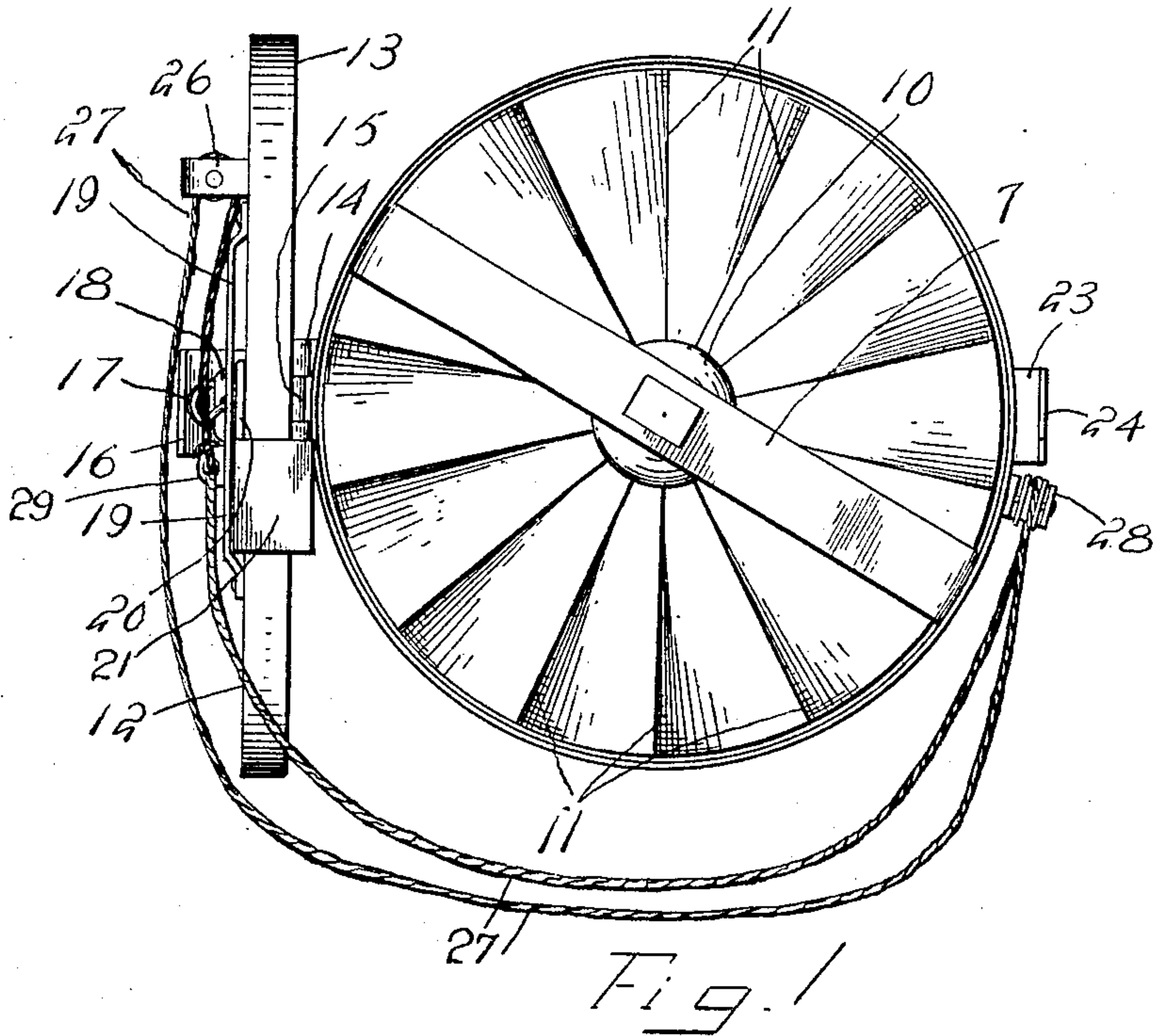
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VENTILATOR.

APPLICATION FILED SEPT. 30, 1907. RENEWED FEB. 13, 1909.

916,484.

Patented Mar. 30, 1909.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

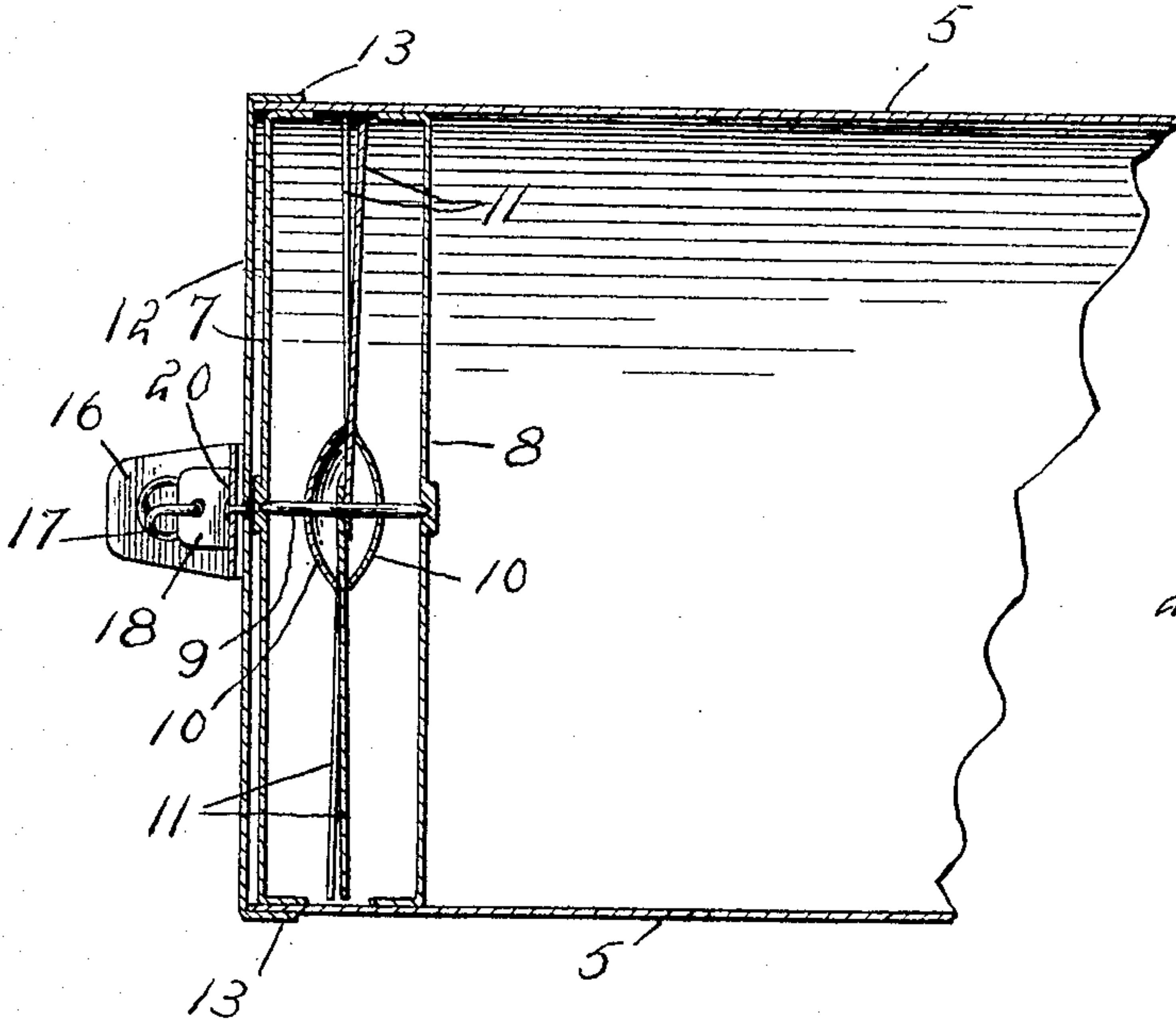


Fig. 3.

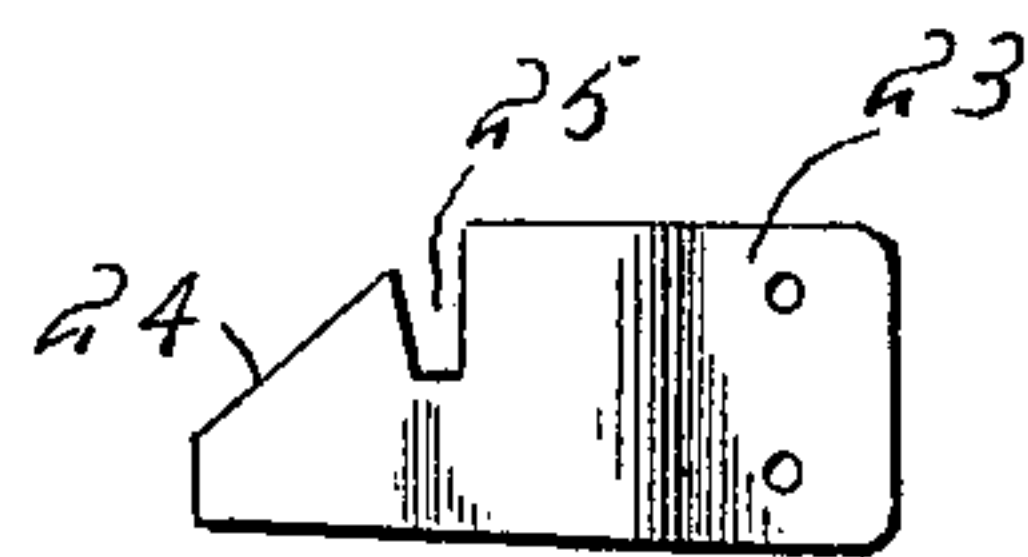


Fig. 5.

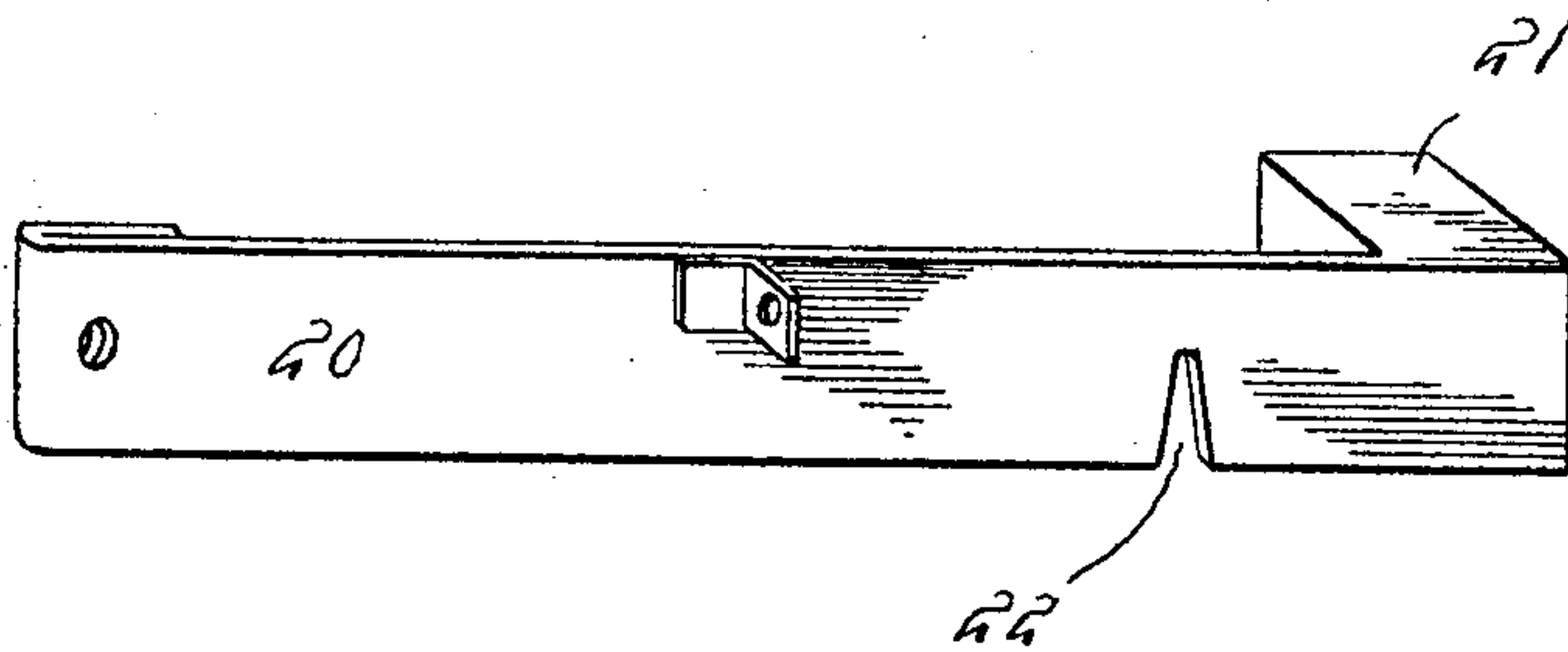


Fig. 4.

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VENTILATOR.

No. 916,484.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN A. PIHL, a citizen of the United States, residing at Floodwood, in the county of St. Louis, State of Minnesota, have invented certain new and useful Improvements in Ventilators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in ventilators and it has more particular reference to a ventilator for single rooms and of that type which includes a pipe and a rotatable draft operated suction fan, the object being to provide a novel construction, combination and arrangement of parts.

The details of construction will appear in the course of the following description in which reference is had to the accompanying drawings forming a part of this specification, like characters of reference designating similar parts throughout the several views, wherein:

Figure 1 is a front elevation showing the ventilator in use. Fig. 2 is a front elevation showing the ventilator to be hereinafter specifically described. Fig. 3 is a central longitudinal sectional view through the ventilator with the pipe closed. Fig. 4 is a detailed view of the latch for the pipe above referred to. Fig. 5 is a detailed view of a keeper for the latch shown in Fig. 4.

The ventilator comprehended in the present invention comprises a pipe 5 which is set into an opening in the wall of the room and which projects at each end beyond said wall, the pipe 5 having connection at its outer end with an elbow pipe (not shown) to prevent back drafts such as would tend to retard the action of the apparatus.

Spanning the pipe 5 at its inner end are bars 7 and 8 arranged in spaced relation, the bar 7 being preferably removable. At central points, the bars 7 and 8 are constructed as bearings for the ends of a shaft 9 upon which is fixedly held a sleeve 10 provided with the radially extending spaced, overlying fan blades 11. It will be apparent that the draft through the pipe 5 will rotate the fan blades 11 so that a suction is created by means of which dust and suspended matter is drawn from the room.

The inner end of the pipe 5 is closed by a lid 12 which is provided with a flange 13 surrounding the end of the pipe 5, the flange 13 having connection with a leaf 14 forming an element of a hinge joint 15. Projecting from the pipe 5 is a bracket 16 to which is connected one end of a retractile coil spring 17, the other end of said spring having connection with an apertured ear 18 provided on the lid 12. The said lid is provided with a raised strap 19 which constitutes a guide for a pivoted latch member 20 carrying at its end a weight 21 and provided inwardly of said weight with a recess 22. A projecting keeper 23 is carried at the inner end of the pipe 5, the keeper 23 having a beveled edge 24 and a recess 25 in its upper edge. The recesses 22 and 25 afford means whereby the catch member may be engaged with the keeper to prevent the lid from being opened by the spring 19, as will be readily understood.

A pulley 26 is mounted upon the lid 12 the said pulley constituting a guide for a pendent rope 27 which is connected to the latch member 20 and by means of which said latch member may be raised or lowered. A pulley 28 is mounted upon the pipe 5, the pulley 28 constituting a guide over which passes pendent rope 27 which has its opposite end connected to the lid 12 by an eye 29 and by means of which said lid may be moved to close the end of the pipe 5.

It will be apparent that pulling on the rope 27 directly upon the extremity connected to the eye 29 and passing over pulley 28 will close the lid and the latch then will automatically engage the keeper 23 by its own gravity. Now to release the latch member 20 it is necessary to pull on the rope 27 to tension the extremity passing over guide pulley 26 and connected to said latch member and thereby raising the latter.

The invention is simple in its structural details inexpensive to manufacture, and practical and efficient in use.

What is claimed, is,

A ventilator of the class described comprising a pipe for insertion into a wall and adapted to project at one end a distance beyond the latter, ventilating means disposed within said pipe in close proximity to the projecting end thereof, a spring controlled lid hinged to said pipe and having an annular

flange for frictional engagement with the
outer face of the projecting end of the pipe
to close the same, means for locking said lid
in a closed position and means directly
5 operative upon the locking means to release
the same and also directly operative upon
the lid to close the latter.

In testimony whereof, I affix my signature, in presence of two witnesses.

JOHN AXEL PIHL.

Witnesses:

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H. A. BRANDMIER.