No. 832,247. PATENTED OCT. 2, 1906.

C. W. EDWARDS.

VENTILATOR.

APPLICATION FILED JAN. 22, 1906.

2 SHEETS—SHEET 1.

FIG. 1

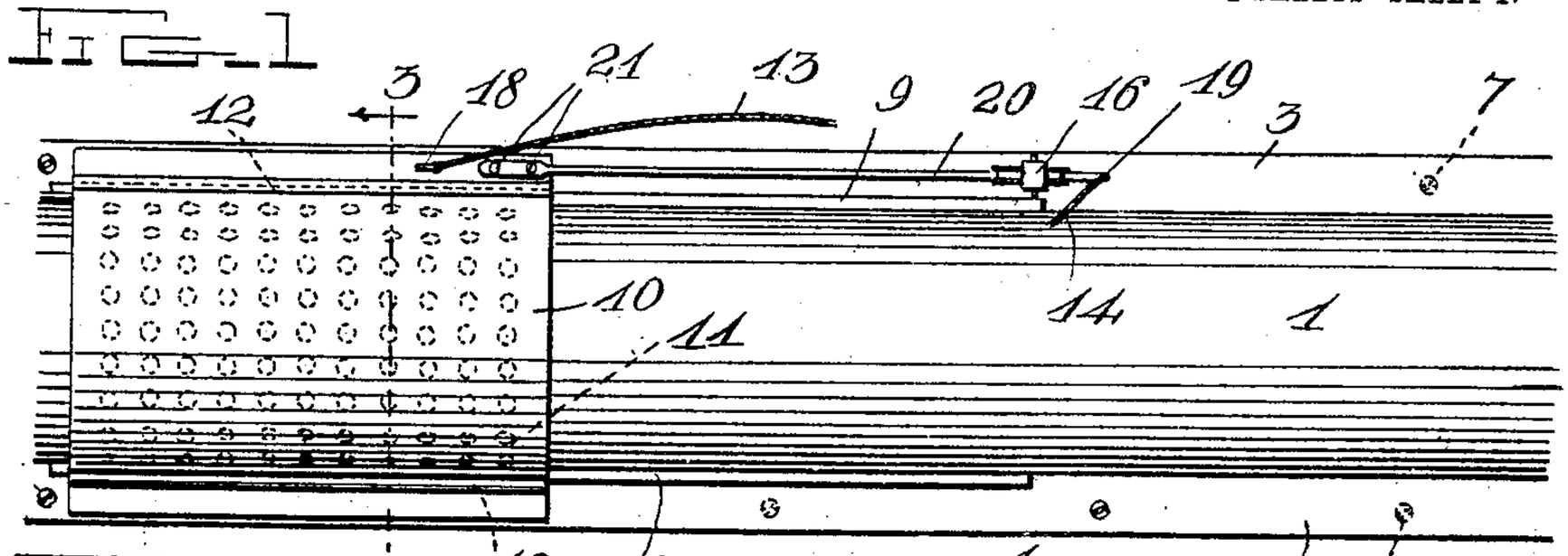

FIG. 2

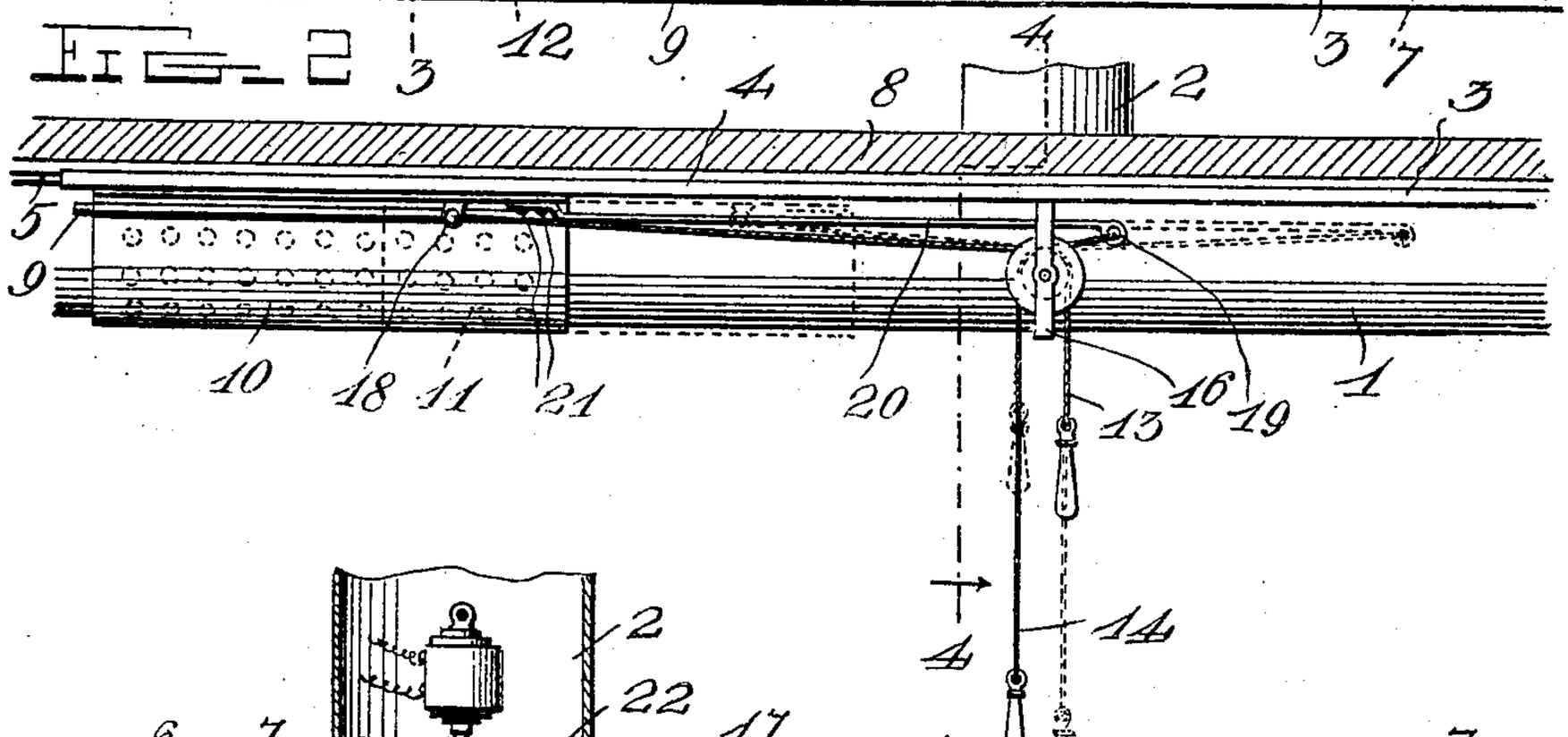

FIG. 4

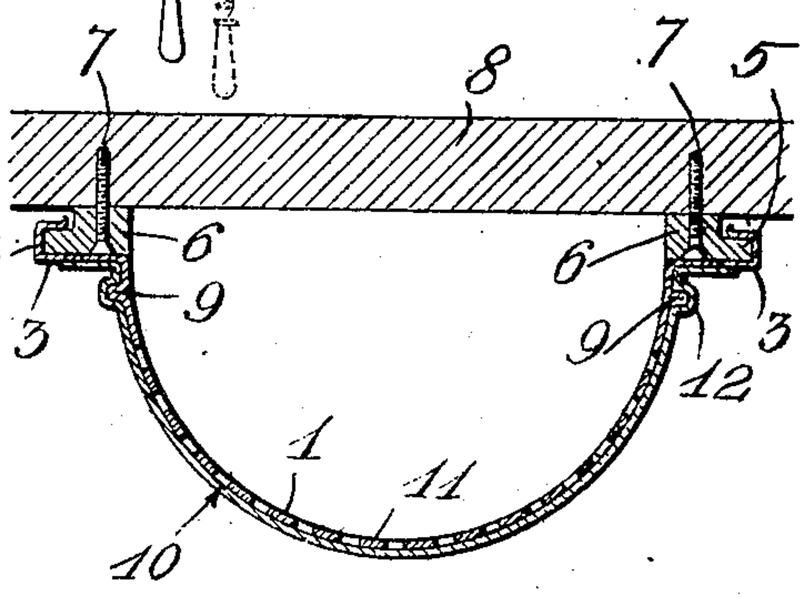

FIG. 3

Witnesses
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2 SHEETS—SHEET 2.

FIG. 1.

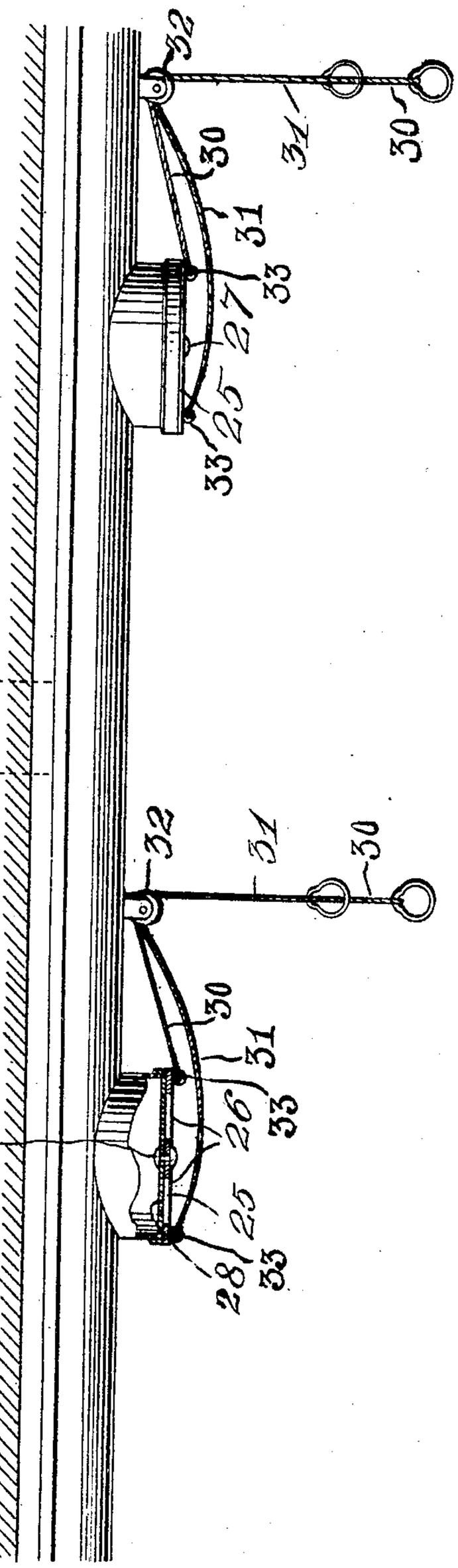

FIG. 2.

FIG. 3.

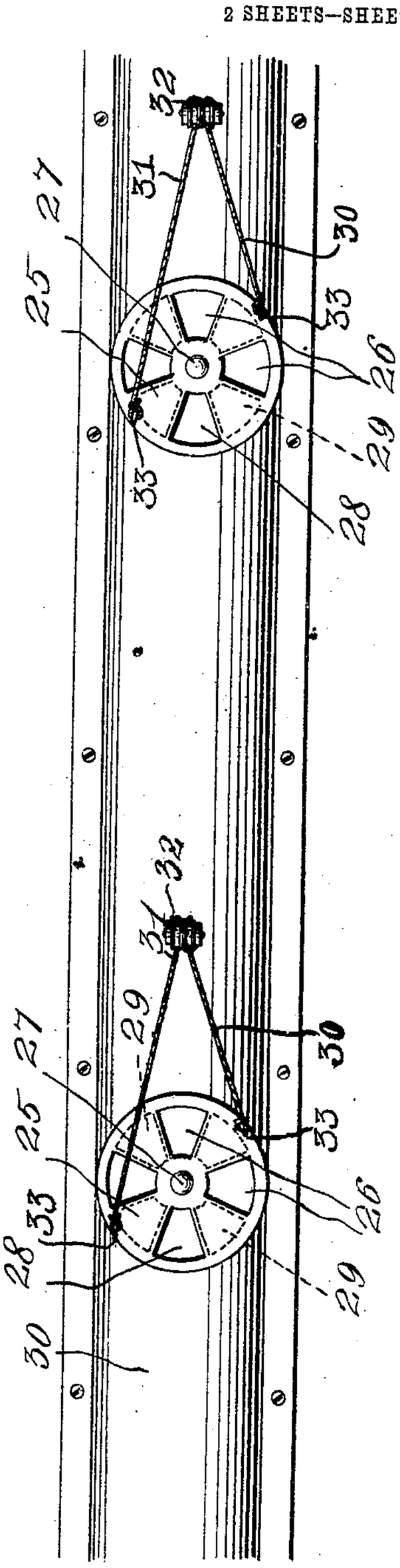

FIG. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES WILLIAM EDWARDS, OF WASHINGTON, DISTRICT OF COLUMBIA.

VENTILATOR.

No. 832,247. Specification of Letters Patent. Patented Oct. 2, 1906.

Application filed January 22, 1906. Serial No. 297,301.

To all whom it may concern:

Be it known that I, CHARLES WILLIAM EDWARDS, a subject of the King of Great Britain, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Ventilators; and I do 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.

My invention relates to improvements in ventilators of that class which are placed in the ceilings, walls, and partitions of buildings and other structures.

The object of the invention is to provide a simple and comparatively inexpensive device of this character which may be readily regulated to vary the amount of air passing through the same.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of my improved ventilator. Fig. 2 is a side view of the same. Fig. 3 is a transverse sectional view taken on the plane indicated by the line 3 3 in Fig. 1. Fig. 4 is a similar detail sectional view taken on the plane of the line 4 4 in Fig. 2. Fig. 5 is a plan view of a modified form of the invention, and Fig. 6 is a sectional view through the same.

The embodiment of the invention illustrated in the drawings comprises a hollow body 1, which forms an air-passage and which is in communication at one or more points with one or more air flues or pipes 2. This body 1 may be secured in the ceiling, wall, partition, or other portion of a building or other structure to be ventilated, and it may be of any size and shape. As shown, it is constructed of sheet metal and is of semicylindrical form, with its side edges bent outwardly in opposite directions to form attaching-flanges 3. The latter are bent upwardly and inwardly to form jaws 4, which are adapted to be sprung into engagement with lips 5, formed on the outer edges of cleats 6, which are secured by screws or the like 7 upon the ceiling, wall, partition, or other support 8, upon which the ventilator is mounted. Upon the outer face of the body 1 are formed or provided beads or ribs 9 to slidably support a damper 10, which is adapted to cover and uncover an apertured portion 11 of the body. This damper 10 is of semicylindrical form and is adapted to slide upon the outer face of the body. While it may be slidably mounted in any suitable manner, I preferably form or provide it with longitudinal grooves 12 to engage the beads or ribs 9. The apertured or reticulate portion 11 of the body 1 may be of any size, and these portions may be arranged at any suitable points along the body.

The damper is adapted to be slid or shifted back and forth upon the body to cover and uncover its perforate portion 11 by operating two depending cords, chains, or similar flexible connections 13 and 14, which pass in opposite directions around a grooved pulley-wheel 15. The latter is journaled in a bifurcated hanger or bracket 16, screwed or otherwise secured in the support 8 to one side of the body, as shown at 17. The cord 13, which is for shifting the sliding damper 10 to uncover the apertured portion 11 of the body, passes over the pulley 15 and is attached, as shown at 18, to one corner of the damper. The cord 14 is for moving the damper in the opposite direction to close the apertured portion 11 and is passed over the pulley in the opposite direction. The upper end of this cord 14 is attached, as at 19, to one end of a rod 20, which extends through the bracket 16 and has its opposite end secured by screws or the like 21 to the damper. It will be seen that when one or the other of the cords 13 14 are drawn upon the damper will be shifted to either its full or dotted line position. (Shown in Fig. 2.)

The flue or pipe 2 may be of any form and construction, and one or more of them may be located at different points throughout the length of the body 1. If desired, an exhaust-fan 22 may be located in said flue and run by an electric motor or other suitable power to create currents of air through the same and the body 1.

In the embodiment of my invention shown in Figs. 5 and 6 of the drawings I employ a rotary damper 25 instead of the sliding one 11. The damper 25 is in the form of a circular plate or disk formed with radial openings 26 and pivoted at its center, as shown at 27, upon a circular casing or body 28, which latter is also formed with radial openings 29. The latter are adapted to be opened and closed by rotating the damper 25 so as to bring its openings 26 into and out of register with the openings 29, as will be readily under-

stood. The rotation of the damper 25 is preferably effected by drawing upon two cords 30 31, which extend over a guide-pulley 32 and have their upper ends attached to eyes 33, provided upon the damper 25 at opposite points. When the depending end of one or the other of the cords 30 31 is drawn upon, the damper 25 will be given a partial rotation to either entirely or partially open or close the device.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined by the appended claims.

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

1. A device of the character described comprising a hollow body having apertures or openings therein, a damper slidably mounted upon said body, a rod attached to said damper, a guide, and flexible operating connections passed in opposite directions over said guide, one of said connections being attached to said damper and the other to the free end of said rod, substantially as described.

2. A device of the character described comprising a hollow body having apertures or openings therein, a damper slidably mounted upon said body, a rod attached to said damper, a bifurcated guide-bracket adapted to receive said rod, a grooved pulley journaled in said bracket, and cords or the like passed in opposite directions over said pulley, one of said cords being attached to said damper and the other to the free end of said rod, substantially as described.

3. A ventilator comprising a hollow channel-body adapted to be secured to the ceiling or other portion of a building or the like, and formed with an apertured portion, a pipe or flue in communication with said body, guides upon the latter, a damper engaged with said guides and slidable upon said body to cover and uncover its apertured portion, a longitudinally-extending rod attached to one end of said damper, a bifurcated bracket, a pulley-wheel in said bracket and cords or the like passed in opposite directions over said wheel, one of said cords being attached to one end of said damper and the other being attached to the outer end of said rod, substantially as shown and described.

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

CHARLES WILLIAM EDWARDS.

Witnesses:

BENJ. G. CAWL,

JNO. T. MEANY.