

(No Model.)

J. G. SLATER.

VENTILATOR.

No. 295,061.

Patented Mar. 11, 1884.

Fig. 1.

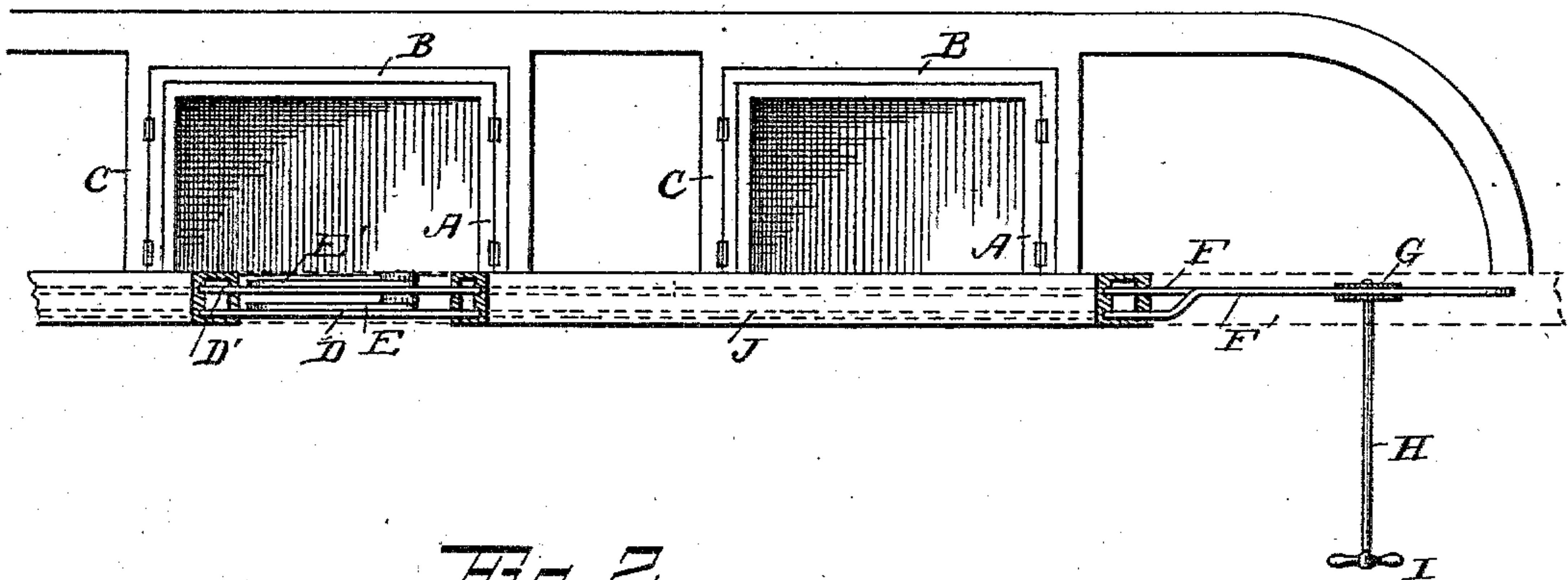


Fig. 2.

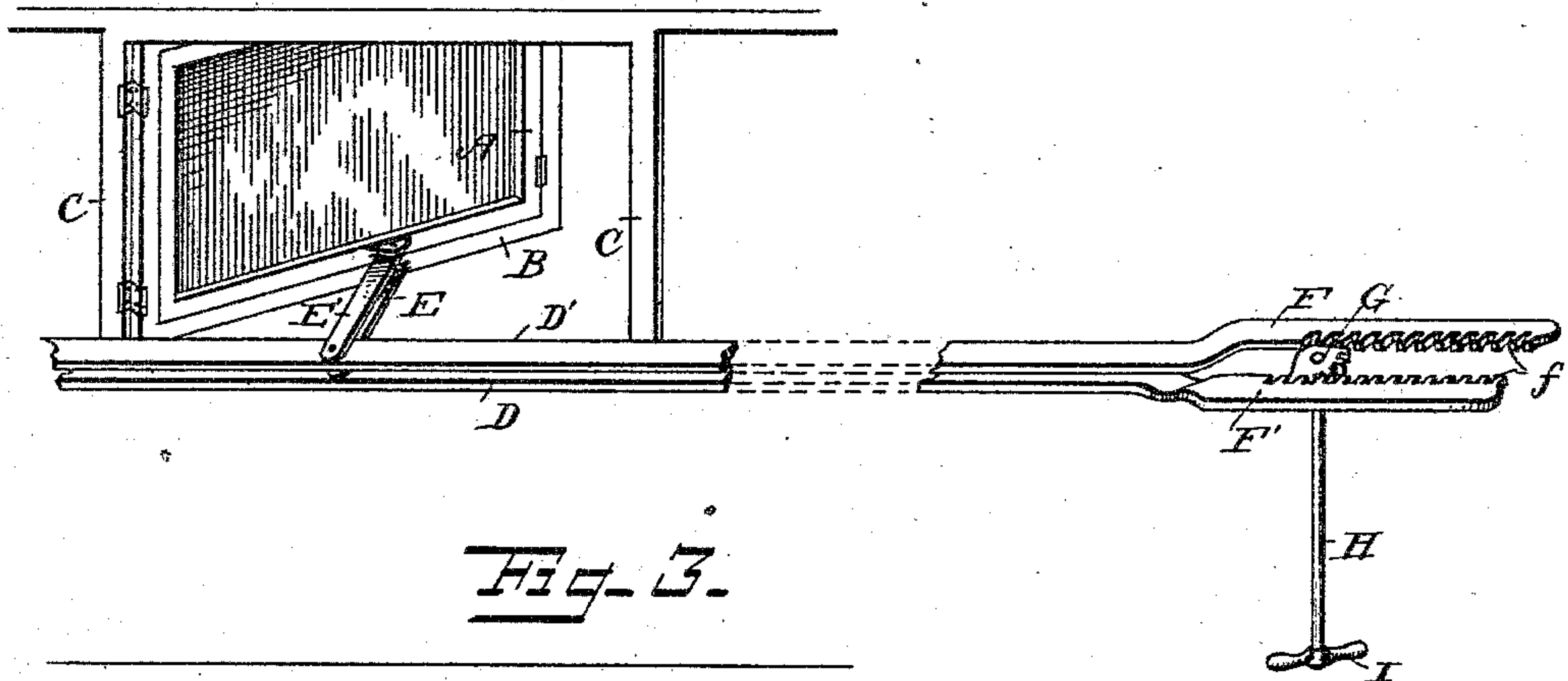
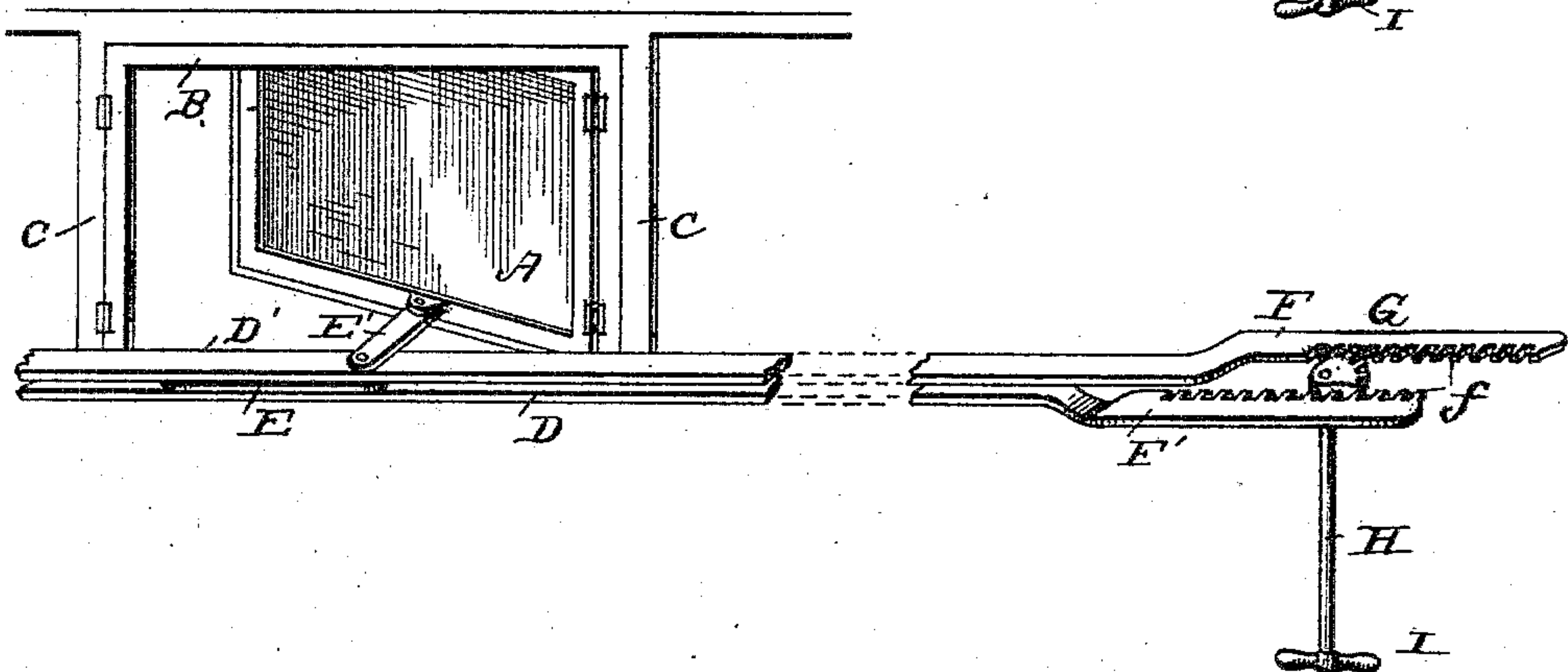


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

JACOB G. SLATER, OF ALBANY, NEW YORK, ASSIGNOR OF ONE-HALF TO
NELSON FITCH, OF SAME PLACE.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 295,061, dated March 11, 1884.

Application filed September 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, JACOB G. SLATER, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented a new and useful Ventilator, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to ventilators; and it has for its object to provide means for operating all the ventilating-sashes of a railroad-car, steamboat, workshop, or other building, at one and the same time.

To this end it consists in certain improvements in the construction of the same, whereby I attain superior advantages in point of simplicity, durability, convenience, inexpensiveness, and general efficiency, all as hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of the upper portion of a car, the ventilators being closed and the operating means in position for use. Fig. 2 is a perspective view, the outer rim, with the sashes, being shown as thrown open. Fig. 3 is a similar view, with the ventilating-sashes thrown open, the outer rim or frame being closed.

Like letters refer to corresponding parts in the several figures.

Referring to the drawings, A designates the ventilating-sashes of a car, steamboat, workshop, or other building in which a series of ventilators are used to supply the necessary amount of fresh air to the interior of the same. These sashes are hinged to rectangular rims or frames B, which inclose the outer edges of the sashes, said frames being likewise hinged to the sash-frames C, so that by operating the devices hereinafter set forth in one direction the entire rim and sash will be thrown open, and then, by operating the said devices in the opposite direction, the sash alone will be thrown open, leaving the rim remaining in position within the sash-frame.

D designates a rod or bar running the entire length of the car or steamboat, having arms E pivoted to the same opposite each of the ventilating-sashes, said arms being arranged to connect with the rim B in order to

throw open the said rim when the rod D is operated. A similar rod or bar, D', is placed over the bar D, and is provided with similar arms, E', which connect with the sashes A, so that when the arms E' are operated by the movement of rods D' said arms will throw open the sashes A without disturbing the rims from their position within the sash-frame. The front ends of the rods or bars D D' are extended outward in opposite directions to form arms F F', the inner faces of which are provided with teeth f, with which a segment, G, on the end of a rod, H, alternately engages, the other end of the rod H being provided with a knob or operating-handle, I. The rods D D' run in grooves or guideways formed in a casing or boxing, J, while all parts of the operating means, except the knob I and a portion of rod H, are suitably inclosed, so as to be invisible.

The operation of my invention is obvious. The rim and the ventilating-sashes are hinged on opposite sides, so as to open in opposite directions, and since the sashes are hinged to the rims, the former will be carried around when the rims are opened, while when the sashes are operated the rims will not be disturbed. By turning the rod H in one direction, the segment G engages with the teeth on the arm F, and causes the rod or bar D to be drawn forward. The forward movement of said rod will throw the arms E in an outward direction, causing the rim B, with the sashes A, to open outward in one direction, so as to supply the necessary fresh air to the interior of the car, while the opening of the same also serves to prevent rain or the sun's rays from entering the car in that direction. The movement of the rod H in the reverse direction will close the sashes, and will enable the segment to engage with the teeth on the arm F', the rod D' being drawn forward, causing the outward movement of the arms E', which will throw open the sashes A without disturbing the rims B, the said sashes opening outward in a reverse direction to the rim, so as to prevent the entrance of rain, hail, or the sun's rays from that direction. It will be seen that by the movement of the rods in the manner stated the ventilating-sashes will be thrown

open in two different directions, in order to exclude rain, hail, or the sun's rays from either direction; and it will also be seen that all the sashes are operated by the movement of the rods, and thus the passengers will not be bothered by the workmen climbing over the seats in order to open the ventilating-sashes. The sashes are all closed by the simple operation of the rod H, and since the rods run in guideways, all resistance by friction will be obviated. As all the parts of the operating means for the ventilating-sashes are inclosed, so as to be invisible, there will be less danger of the same being tampered with, and all parts will work true and correct.

The operating-knob can be placed at the end of the car near the stove, so as to be out of the way; and it will be obvious that my improved ventilator may be applied to steamboats, workshops, public buildings, &c., in order to open all the ventilating-sashes at the same time, without the necessity of annoying the passengers or employes, since it will not require a minute's work to operate a long series of the sashes. The sashes can be opened at different angles, as desired, and they will be securely held at any particular point. It is simple and certain in its operation, and cannot, without willful violence, get out of order. It is inexpensive, since it is cheaper than the ordinary ventilators in use, and will save the cost of the adjusting attachments necessary for each sash under the old style.

It will be obvious that various modifications may be made in the foregoing without departing from the spirit or scope of my invention.

Having described my invention, I claim—

1. In a ventilator, the ventilating-sashes connected to inclosing-rims, the latter being

hinged to the sash-frames, in combination with a pair of rods or bars provided with arms connecting with each of the sashes, and also with the rims, and means for operating the said rods or bars to cause either the opening of the rims or the opening of the sashes independently of the rims, as set forth.

2. In a ventilator, the ventilating-sashes connected to inclosing-rims, the latter being hinged to the sash-frames, in combination with a pair of rods or bars provided with arms connecting with the sashes and rims, the front ends of said bars being provided with teeth with which a segment engages, and means for operating said segment, as and for the purpose set forth.

3. In a ventilator, the ventilating-sashes hinged to inclosing-rims, the latter being likewise hinged to the sash-frames, in combination with a pair of rods or bars provided with arms connecting with the sashes and rims, the front end of the said bars or rods being provided with teeth, a segment alternately engaging with said teeth, a rod for operating the segment, and a knob or handle for the rod, as and for the purpose set forth.

4. In a ventilator, the ventilating-sashes A and the rims B, in combination with rods D D', arms E E', said rods D D' having outwardly-extending arms F F', the inner faces of which are provided with teeth, a segment, G, rod H, and knob or handle I, arranged and operating for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JACOB G. SLATER.

Witnesses:

JOHN W. CRANE,
NELSON FITCH.