

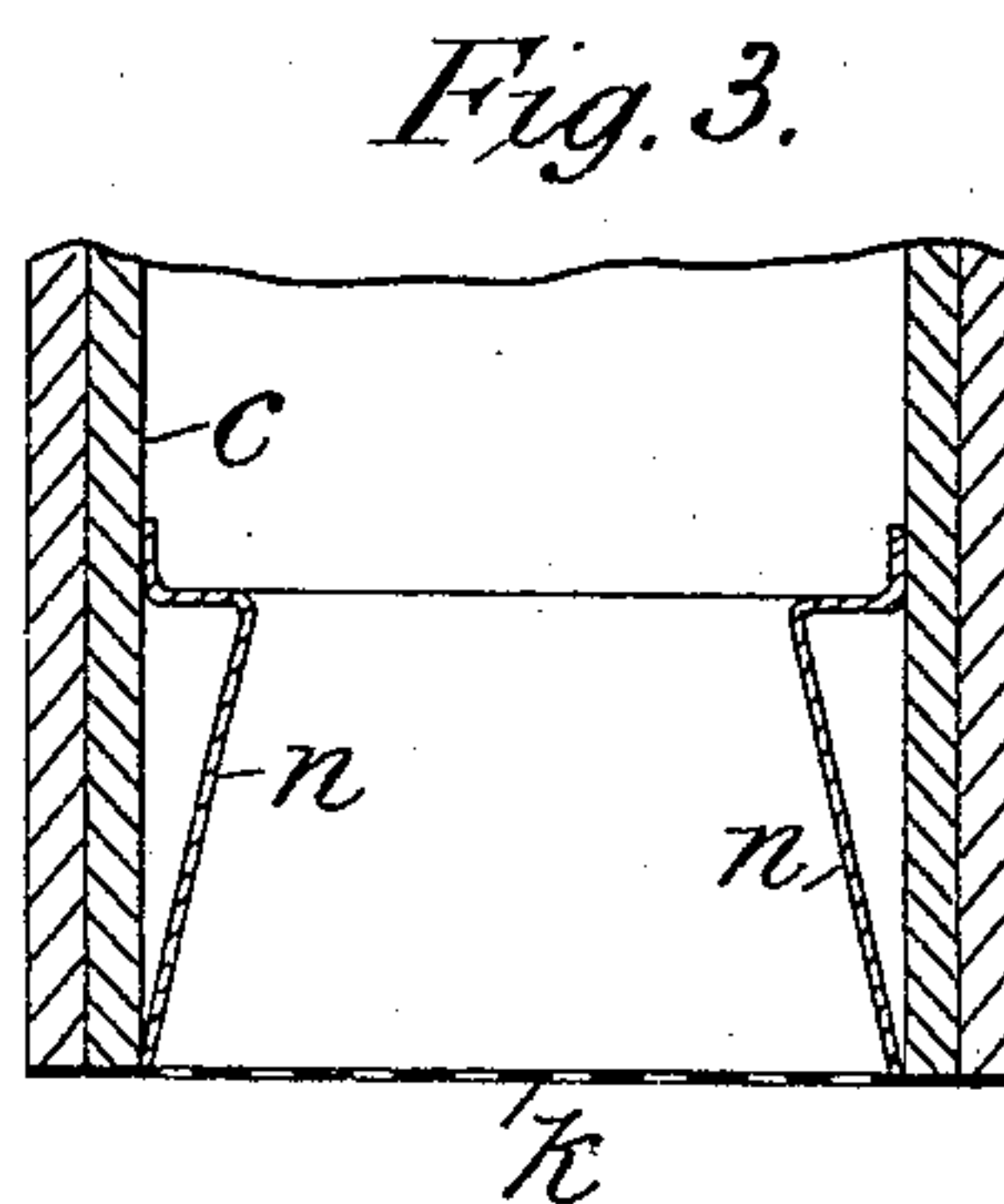
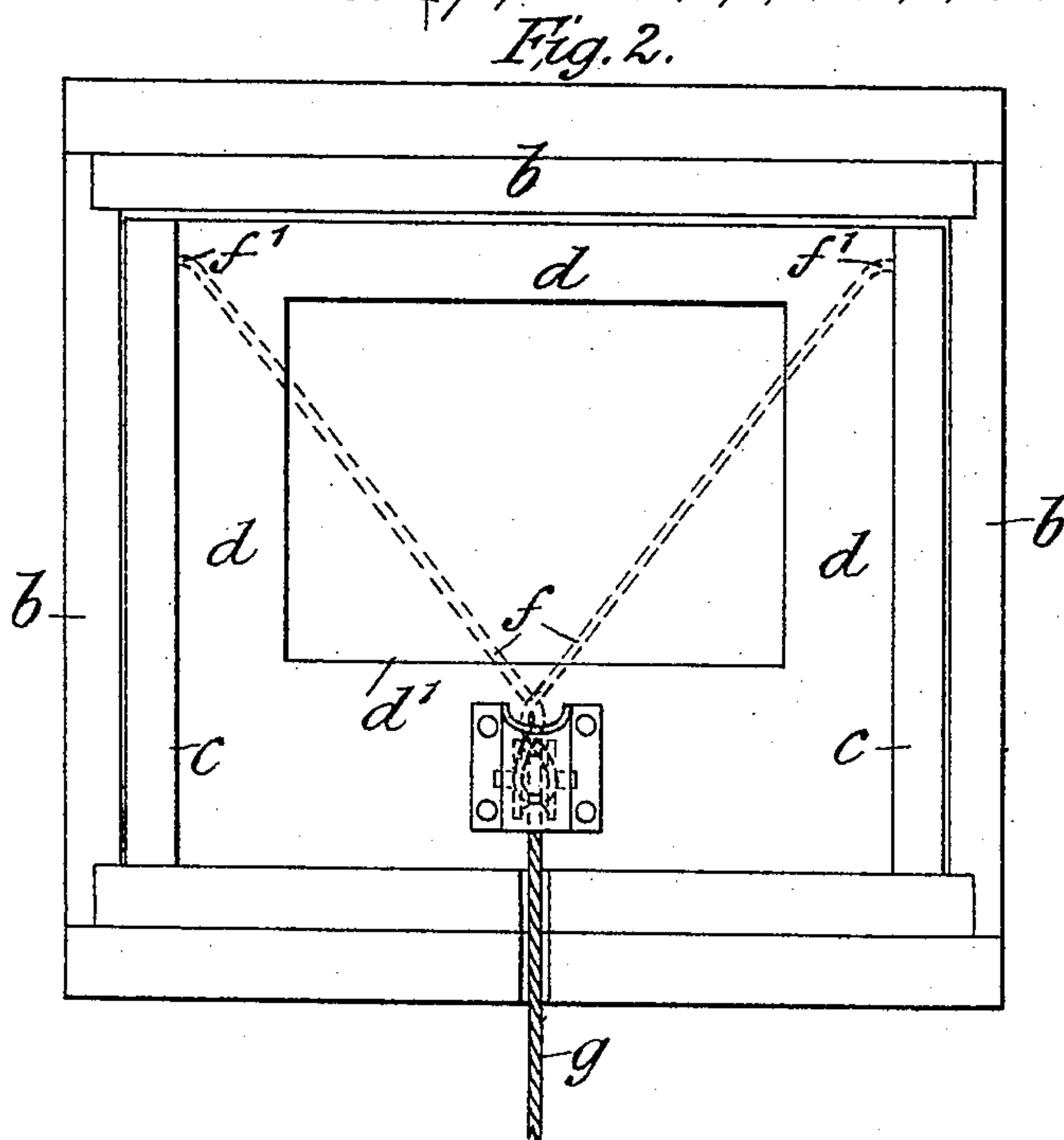
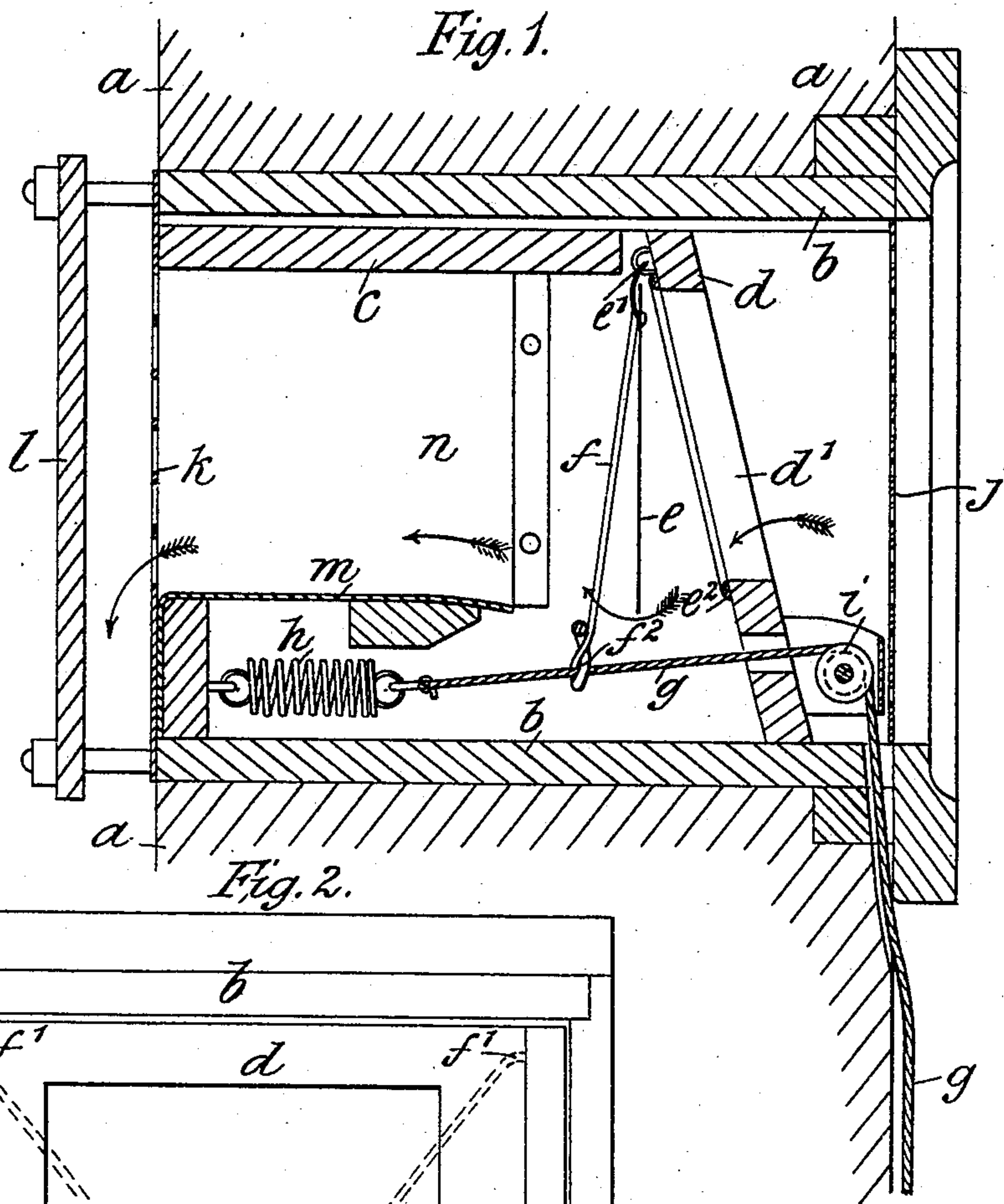
No. 774,053.

PATENTED NOV. 1, 1904.

W. EDWARDS.
VENTILATOR.

APPLICATION FILED SEPT. 21, 1903.

NO MODEL.



Witnesses
J. J. Rowley
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UNITED STATES PATENT OFFICE.

WALTER EDWARDS, OF MILFORD, ENGLAND.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 774,053, dated November 1, 1904.

Application filed September 21, 1903. Serial No. 174,107. (No model.)

To all whom it may concern:

Be it known that I, WALTER EDWARDS, builder, a subject of the King of Great Britain and Ireland, residing at Mousehill, Milford, in the county of Surrey, England, have invented certain new and useful Improvements in Ventilators, of which the following is a specification.

This invention relates to ventilators adapted to the walls of buildings with a view to carrying off the impure or vitiated air from the upper part of a room or other interior and preventing downdrafts. For this purpose I provide a rectangular metal box which is fitted to the outer wall of the building so as to pass through or partly through an opening in the same near the ceiling of the room to which it is applied. The inner side of this box is provided with a grid or perforated plate behind which is pivoted a vertically-hanging flap or valve made of mica, thin metal, or other light material. This valve when forced by the inrush of outer air assumes an inclined position against a flange or rim, forming an inner opening behind the aforesaid grid, thus stopping the inrush of air to the room. This box preferably carries a loose inner box or chamber in which the valve is suspended and the inner end of which forms the inclined rim or seat for the valve around the inner opening. This latter chamber is also fitted with a horizontal plate, slightly curved, over which the air escaping from the room underneath the valve passes to a perforated plate at the outer end, through which it escapes to the outer air. The valve may be held in its closed position by means of a lever pivoted behind the same and acted upon by a cord connected to a spring at the outer end of box, the said cord passing over a pulley at the inner end and into the room, where it may be operated and secured for fixing the valve in its closed position.

In order to clearly understand my invention, reference is had to the accompanying sheet of drawings, in which—

Figure 1 is a side view in section of my improved ventilator fitted to the wall of a building. Fig. 2 is a front elevation of the same

with the inner grid removed; and Fig. 3 is a horizontal section, to a smaller scale, of the outer half or end of the boxes.

a is the outer wall of the building, and *b* is the outer box, fitted to an opening in the same.

c is the inner box or chamber, and *d* is the inclined inner end of same, provided with the opening *d'*.

e is the mica or other valve, pivoted at *e'* to the end *d* so as to hang vertically in its normal or open position, and *e²* is a seating of soft material to prevent any noise or rattling in the closing of the valve.

f is the lever, pivoted at *f'* to each side of the box and formed with a loop *f²* at its lower end, through which passes the cord *g*, secured to a spring *h*, fixed to the outer end of the box and passing through an opening in the end *d* over pulleys *i* into the room.

j is the inner grid or perforated plate, upon removing which the inner box may be removed from the outer one, so that the interior may be examined.

k is a perforated plate fixed to the outer end of the box *b*, through which the air from the room escapes, and *l* is a plate supported a short distance from the plate *k* to prevent the sudden inrush of air from outside through the ventilator.

The air from the room passes through the grid *j* and through the opening *d'*, taking the course indicated by the arrows, underneath the valve *e*, and over the plate *m* and finally passes through the perforated plate *k* to the outside of the building. Any inrush of outer air causes the valve *e* to close against its seating *e²*, and thus prevents drafts, the said outer air being directed onto the valve by the inclined position of the side plate *n*, as shown in Fig. 3. To secure this valve in its closed position, the cord *g* is pulled from inside, thus drawing the lever *f* against the valve and the latter against its seating, where it is held by securing the cord to a hook or cleat in the room. Upon releasing the cord the spring *h* draws it and the lever *f* back to the position shown, thus freeing the valve, which then assumes its vertical or open position.

Having now fully described the nature of

my said invention, what I claim, and desire to secure by Letters Patent, is—

5 In ventilators the combination of a box fitted to the outer wall of a room and provided with an inner and an outer grid, an inner box fitting the same, a vertically - hanging valve at the inner end of said box, a pivoted lever operated by a cord for drawing the same against the valve to close the latter, an
10 inclined flexible seating against which the valve closes, a spring attached to the cord for automatically releasing or opening the valve,

a horizontal curved plate for directing the air from the room to the outer grid, and inclined side plates for directing the outer air to the valve for closing the latter, substantially as described. 15

In witness whereof I have hereunto set my hand in the presence of two witnesses.

WALTER EDWARDS.

Witnesses:

FREDERICK MICAH MELLOR,
JOHN BEACH FLEURET.