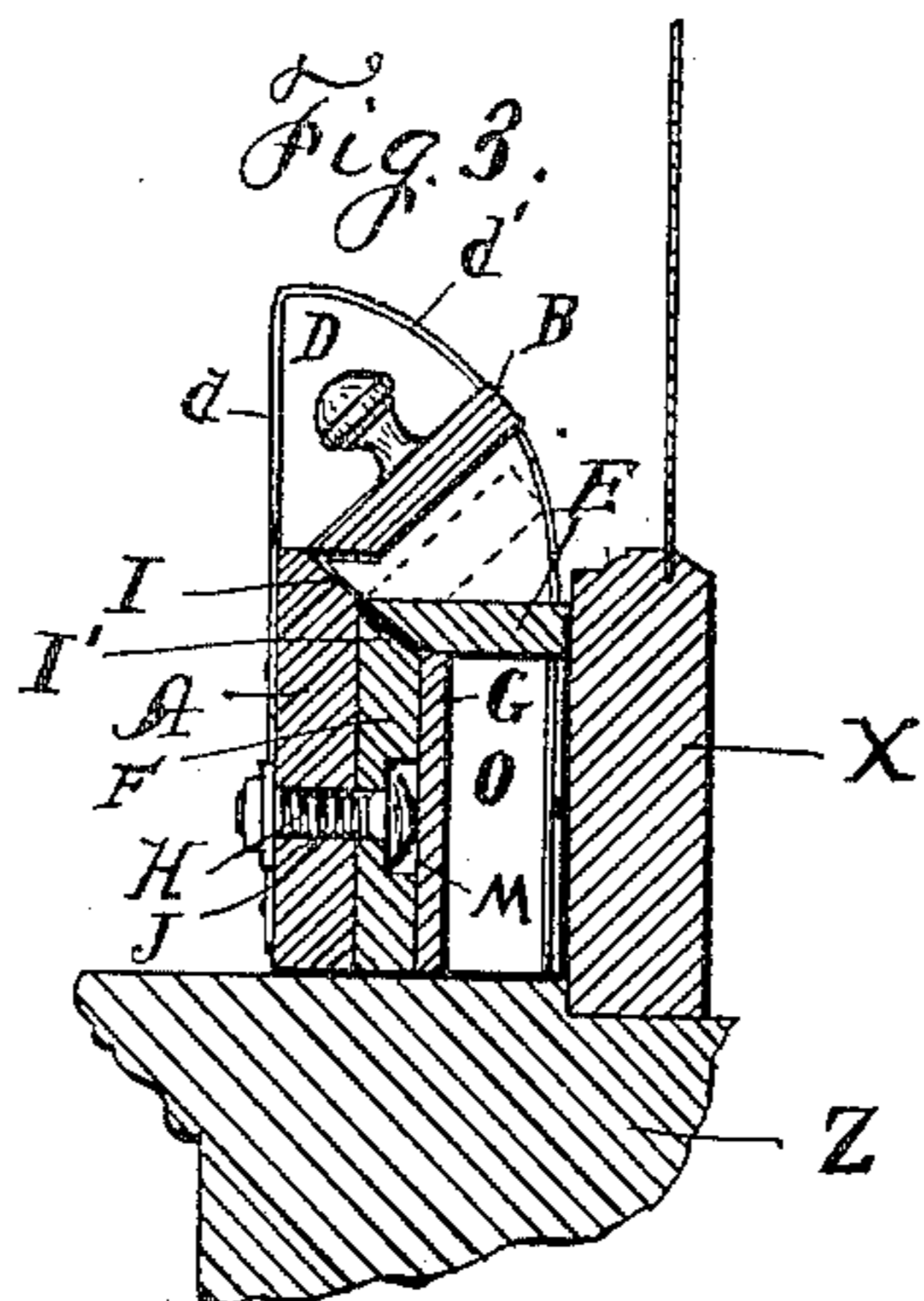
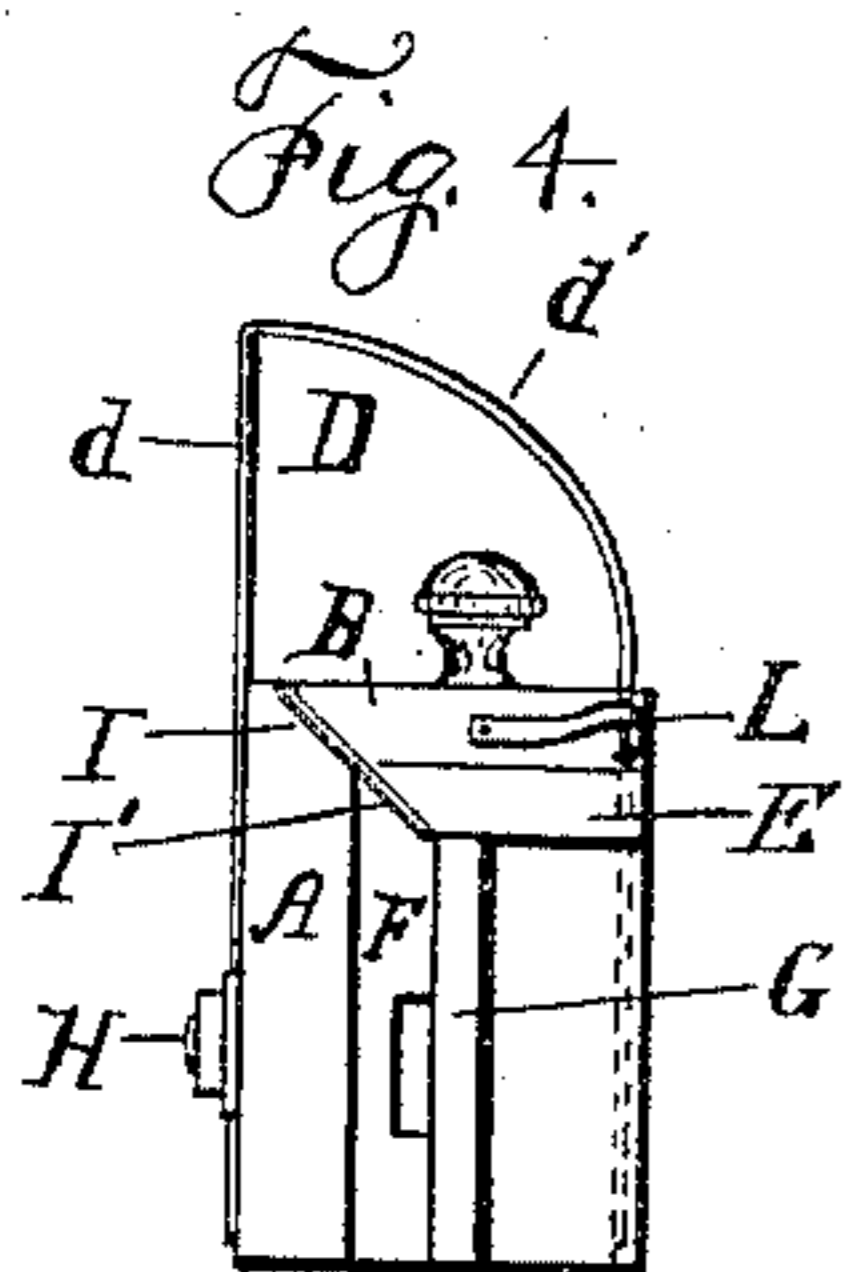
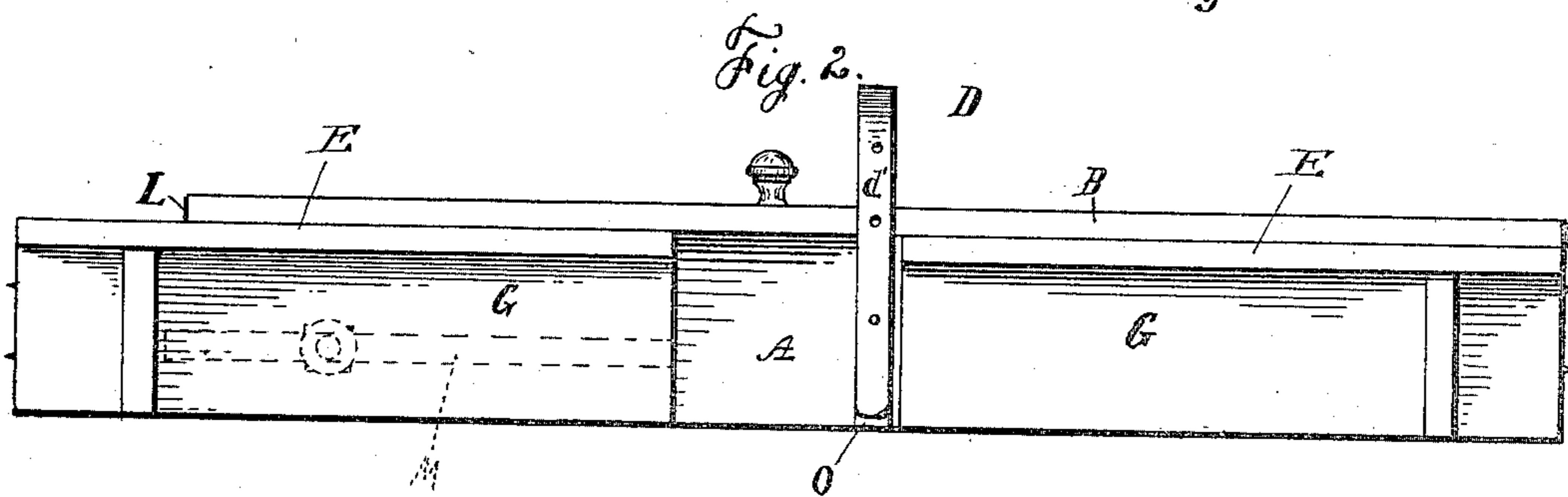
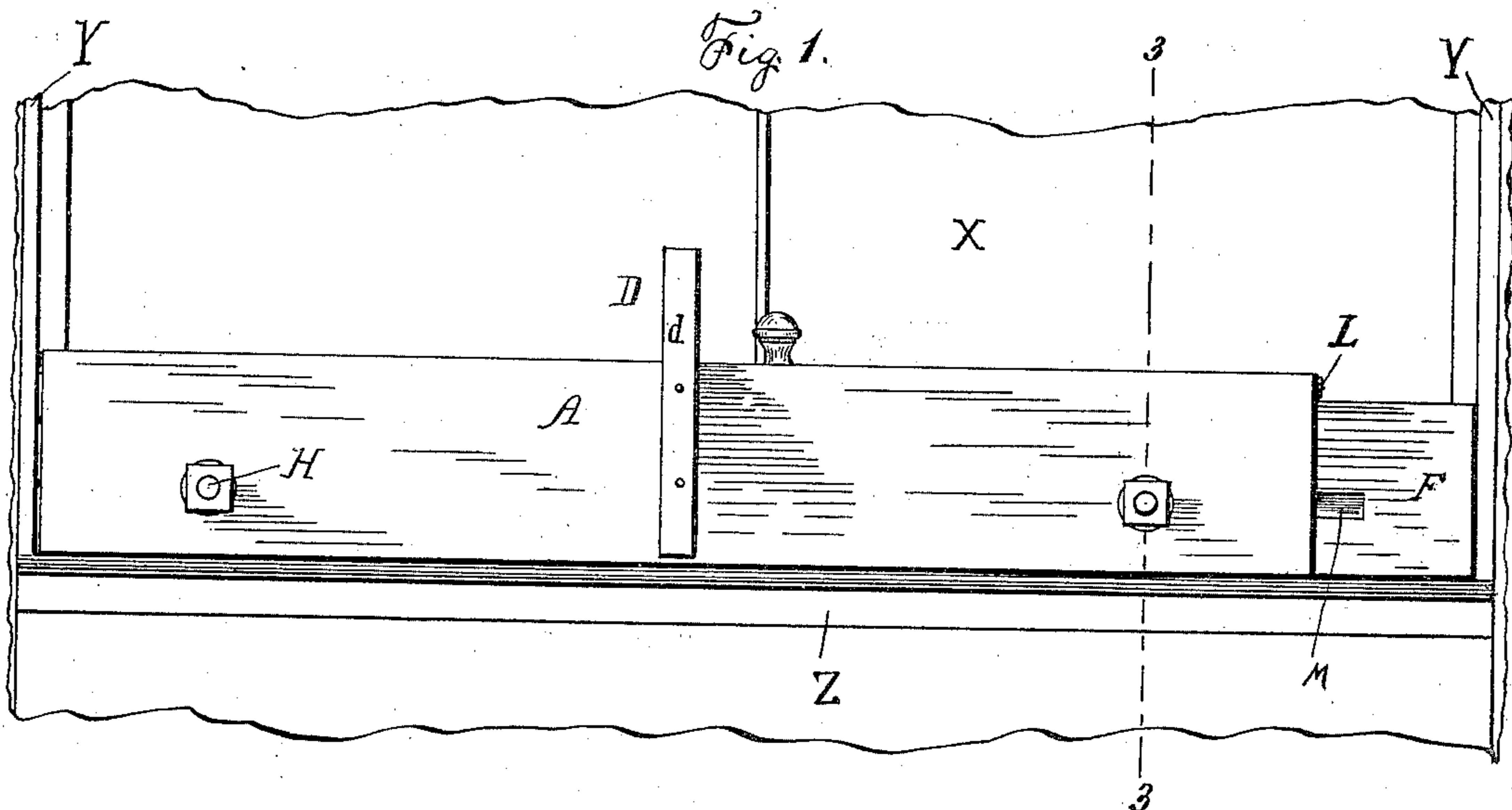


(No Model.)

W. L. & E. G. JOHNSON.  
WINDOW VENTILATOR.

No. 604,618.

Patented May 24, 1898.



Witnesses:-  
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# UNITED STATES PATENT OFFICE.

WILLIAM L. JOHNSON AND ERNEST G. JOHNSON, OF BUFFALO, NEW YORK.

## WINDOW-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 604,618, dated May 24, 1898.

Application filed February 8, 1897. Serial No. 622,495. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM L. JOHNSON and ERNEST G. JOHNSON, citizens of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Window-Ventilators, of which the following is a specification.

Our invention is a window-ventilating device adapted to be applied to the lower sash of a window and to control and direct a current of air which may enter the apartment and having certain novel features of construction and arrangement, as will be hereinafter pointed out.

In the accompanying drawings the most approved form of our invention is illustrated.

Figure 1 is an inside elevation of a device embodying our invention and shown as applied to a window. Fig. 2 is a similar view as seen from the outside. Fig. 3 is a cross-sectional view taken on the line 3 3 of Fig. 1. Fig. 4 is an end view.

In the drawings, X designates the lower sash of a window, Y the window-casing, and Z the sill. When in use, the ventilating device rests upon the sill of the window and inside of the lower sash, so that when the latter is pushed down it comes in contact with the outer edges of the device.

A designates a piece of material, which is preferably of a length equal to the distance between the side pieces of the window-casing. To the upper edge of this piece there is hinged another piece or strip of material, B, as by means of a strip of flexible fabric I. The adjacent and connected edges of the pieces A and B may be beveled, so that when they come together the two pieces are disposed at right angles to each other, in practice the piece A being vertical and the piece B horizontal and extending toward the window-sash, with which its outer edge engages.

D is a catch secured to the piece A and arranged to engage with the swinging strip B and hold it in the various positions to which it may be adjusted. This catch is preferably formed of a strip of spring metal having an inner upright portion *d*, which is secured to the piece A, and a curved portion *d'*, which engages with the edge of the hinged piece and is formed with a number of holes through

it to receive a short pin in the edge of the strip B. The lower portion of the part *d'* of the catch is secured to a block O on the outer side of the piece A. By pressing outward against the upper part of the catch it can be moved so as to release the hinged piece B, when the latter may be moved into whatever position it is desired it should occupy. When the catch is released, it springs back into engagement with the piece B and holds it, the engagement of the pin with one of the holes in the catch operating to hold the parts with sufficient security.

While it is desirable that the parts A and B of the device should closely fit between the sides of the casing, it is not found practicable to make the ventilators of sizes to fit every possible size of window if they are made of fixed lengths. We therefore make the device with extensible portions which are connected with and supported by the main piece A and are adapted to be moved out beyond the ends of the piece A, so as to engage with the sides of the window-casing should the piece A be too short to reach from side to side. One extension-piece would for most purposes be sufficient, but we prefer to have two, one at each end of the device. Each extension-piece consists of a piece of material F about half as long as the piece A and secured to the rear face thereof by a bolt H. This bolt passes through a hole J in the piece A and a slot M in the piece F, so that the latter can be moved endwise and at the same time be held close against the outer face of the piece A. The outer face of the piece F is grooved on either side of the slot to a depth sufficient to receive the head of the bolt H, and this groove is then covered by a piece of board or other material G, in order to shut out the air from the groove and prevent it from blowing into the apartment through the hole J, to hold the bolt securely in place, and to make a more neat and sightly article of manufacture.

To the upper edge of each of the sliding extensible portions of the ventilator there is hinged, as by a fabric strip I', a swinging flap or air cut-off E, which is arranged to lie parallel with and above or superposed on the main deflector or cut-off B. L designates a hook at the end of the deflector-piece B, by

means of which it is connected with the deflector E, so as to hold the two together in a raised or inclined position. We prefer that there should be two of the deflectors or cut-offs E, one carried by each of the sliding extensions, as we can thereby secure a better control of the ventilation than should a single deflector E of a length equal to the deflector B be used. By the use of the arrangement shown one of the deflectors may be arranged in its horizontal or closed position, while the other is more or less raised or opened. This will result in the cold air being almost entirely introduced at one side of the window, which is often desirable because of the proximity of a heater to such side of the window or a seat near the other side. The amount of air admitted into the apartment can be largely controlled by changing the angles at which the deflectors are set.

The extension-pieces are provided at their ends with spurs or points which may be driven into the sides of the window-casing to hold the device in place. The main supporting-piece A of the device may be provided at one or both ends with like spurs if found desirable.

In very cold or windy weather the outer deflectors E may be left closed and the amount of air admitted and its direction be controlled by the inner deflector.

Our device does not in any wise interfere with the raising and lowering of the window and is not cumbrous or unsightly. Further, it may be put in place or removed in a few moments' time and by any person of ordinary skill.

What we claim, and desire to secure by Letters Patent, is—

1. In a window-ventilator, two hinged de-

flectors, one carried by the main supporting-piece, A, of the device, and the other by an extensible portion of the device, the two deflectors being substantially parallel, and one superposed on the other, substantially as set forth.

2. In a window-ventilator, a hinged deflector, B, and two hinged deflectors, E, the latter being each about half as long as the deflector, B, the deflectors E being arranged to lie above and close to the deflector B, substantially as set forth.

3. In a window-ventilator, the supporting-piece, A, a deflector hinged thereto, two extension-pieces at the ends of the piece, A, and independent deflectors hinged to such extension-pieces, substantially as set forth.

4. In a window-ventilator, the piece, A, a deflector hinged to the upper edge thereof, the extension-pieces, F, the bolts, H, which pass through holes in the piece, A, and through slots in the extension-pieces, the pieces, G, which cover the slots in the extension-pieces, and the deflectors hinged to the said extension-pieces, substantially as set forth.

5. The combination, in a window-ventilator, of the main supporting-piece, a deflector hinged thereto, and a spring-catch for holding the deflector in a more or less open position, having a main portion, *d*, secured to the supporting-piece, and a curved portion, *d'*, under which the deflector moves, and which is adapted to engage with the edge thereof, substantially as set forth.

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