

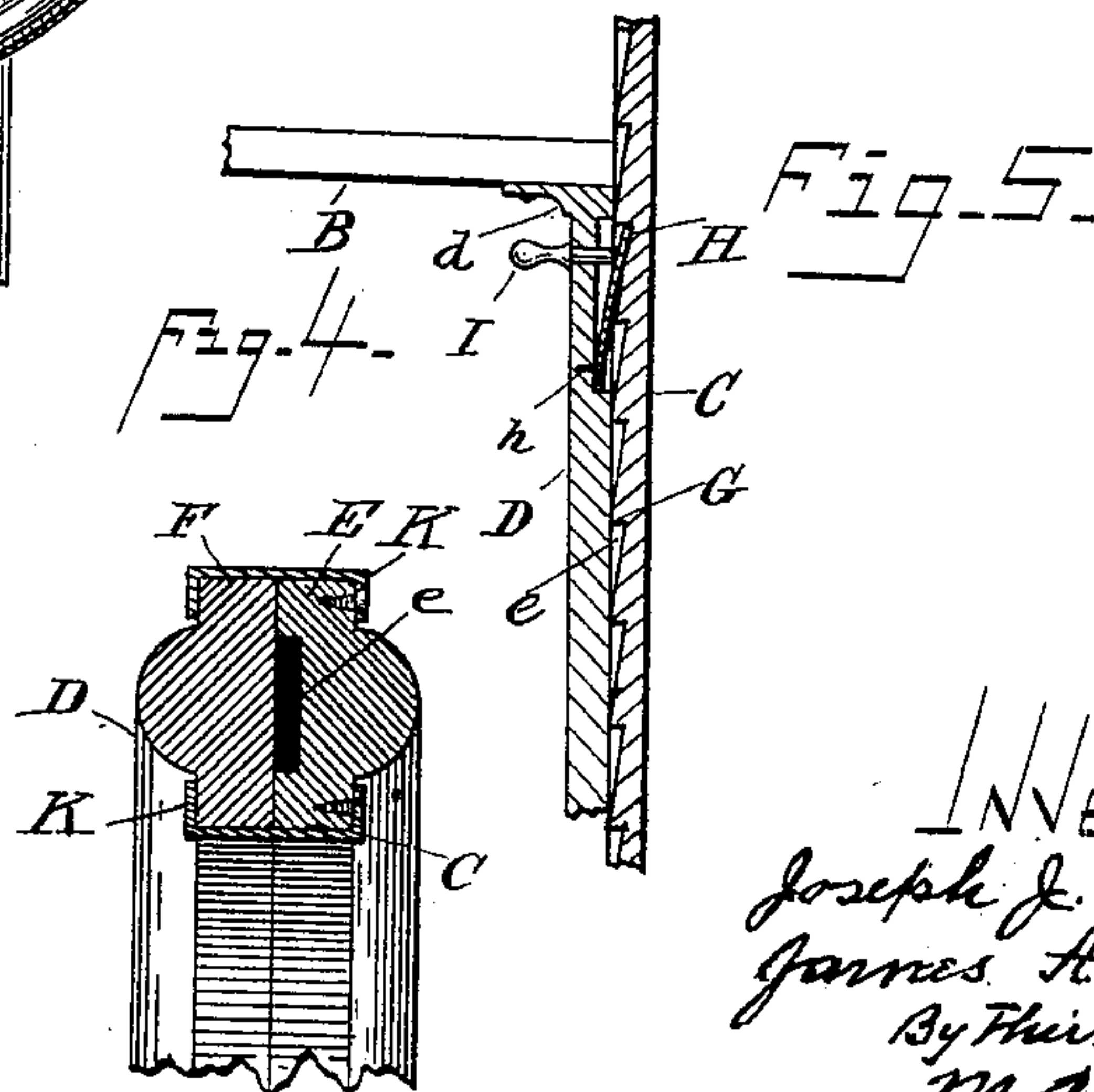
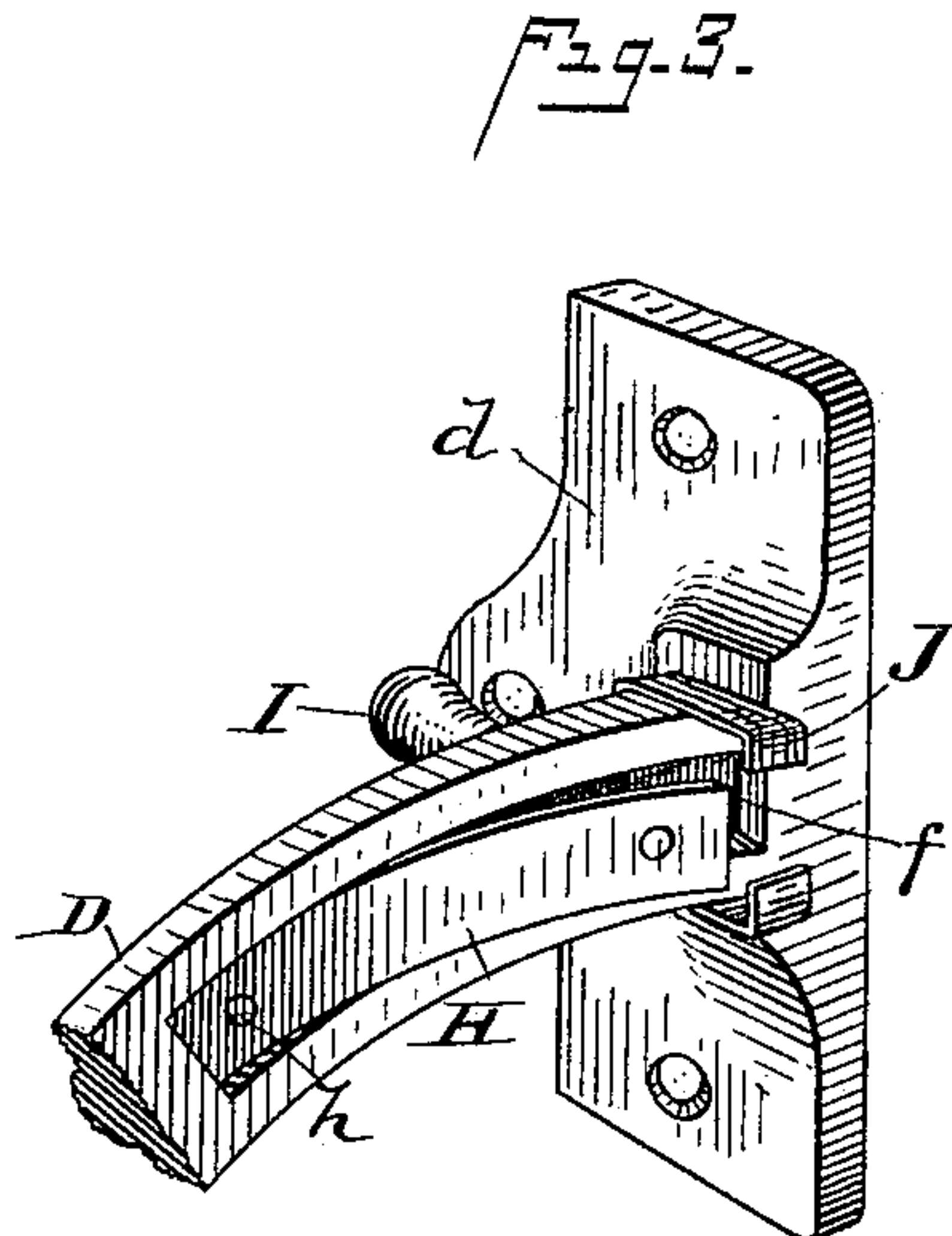
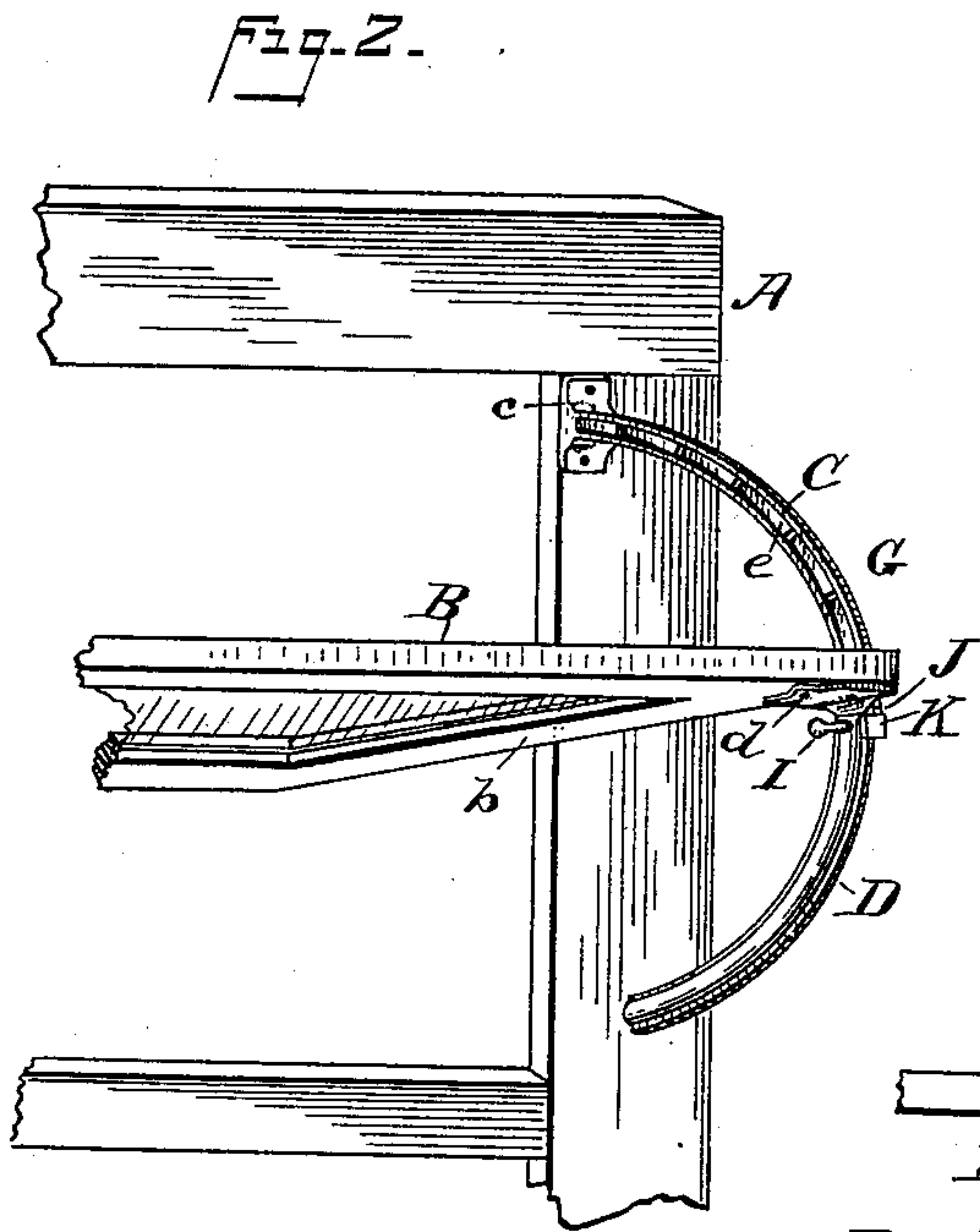
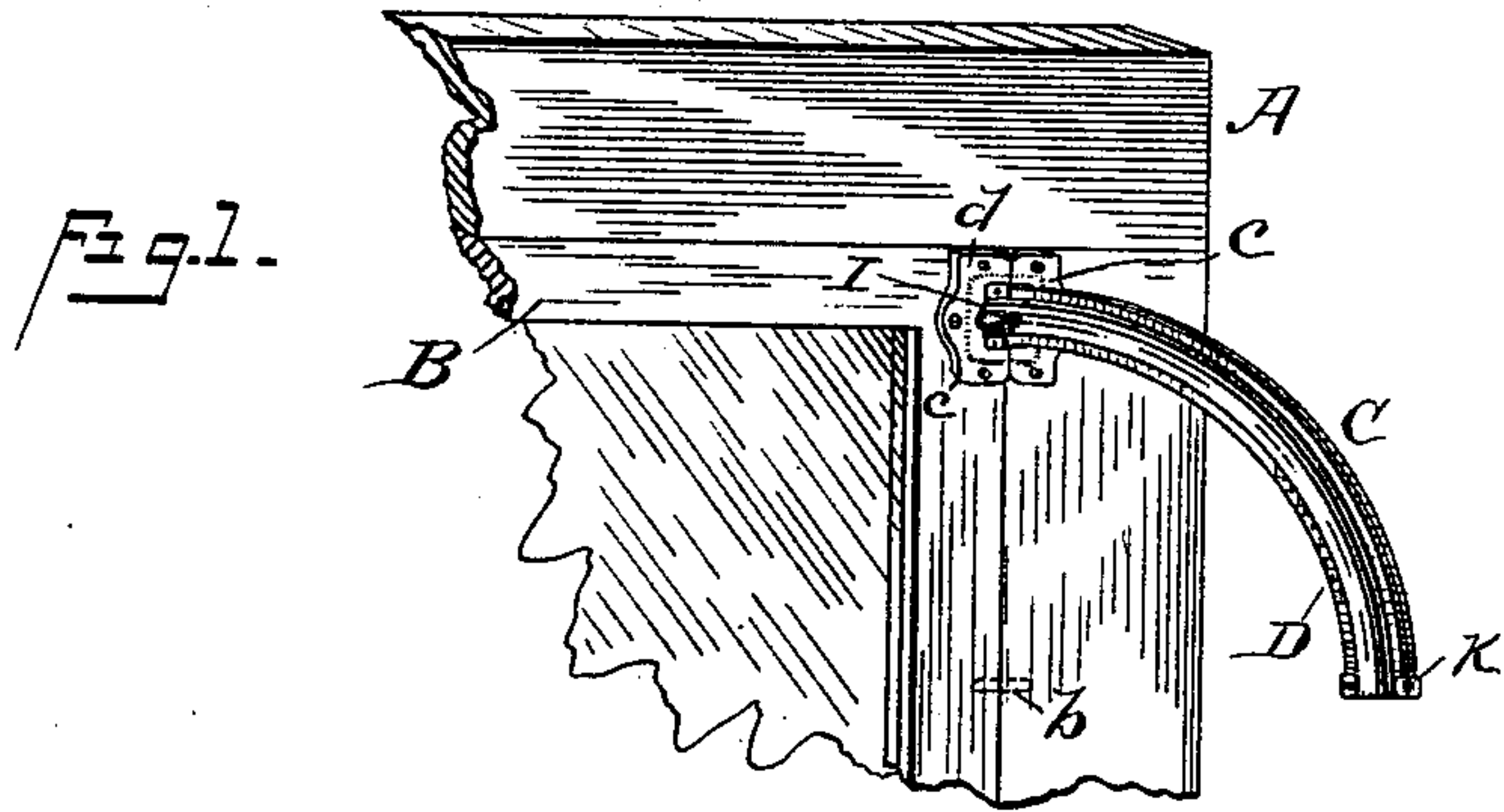
(No Model.)

J. J. BALL & J. A. McBRIDE.

TRANSOM LIFTER.

No. 386,794.

Patented July 31, 1888.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JOSEPH J. BALL AND JAMES A. McBRIDE, OF SYRACUSE, OHIO.

TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 386,794, dated July 31, 1888.

Application filed February 18, 1888. Serial No. 261,444. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH J. BALL and JAMES A. McBRIDE, citizens of the United States, residing at Syracuse, in the county of Meigs and State of Ohio, have invented certain new and useful Improvements in Transom-Lifters; and we 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, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in regulating or lifting devices for transom-windows; and it consists in the construction and combination of parts more fully hereinafter described, and particularly pointed out in the claims.

The object of our invention is to provide a device by which the throw and retention of transom-windows can be positively and readily regulated and held in different positions. We attain this object by the device illustrated in the accompanying drawings, wherein like letters of reference refer to similar parts in the several views, in which—

Figure 1 represents a perspective view of a transom-window and frame, partly broken away, with our device attached thereto, the window being in a closed position. Fig. 2 represents a similar view with the window in a lowered or opened position; Fig. 3, a detail perspective view of the spring-containing portion of one of the arms; Fig. 4, a cross-sectional view through the lower end of the arms and clasps; and Fig. 5, a longitudinal section of a part of the arms, showing the spring in position.

In the drawings, A represents the frame of the window, and B the sash, which is pivoted at *b*, its central end portion, and thus allowed to be actuated up and down or opened and closed. Heretofore windows of this class and construction have depended on their being perfectly balanced when opened; otherwise they will immediately resume their vertical or closed position or be entirely reversed, thus causing considerable annoyance and trouble. To overcome these difficulties we provide a device consisting of two curved arms, C and D,

each forming the quadrant of a circle, so that when extended one upon the other they form a semicircle. These arms are secured, respectively, to the side of the upper end of the frame A and to the upper corner of the window-sash B, adjacent to and in close proximity to each other, so as to conform to the arc described by the upper part of the window when it is opened or swung down on its pivotal bearings *b*, the upper ends of said arms being formed with connecting flanges or plates *c* and *d*, which extend out at right angles to the arms in opposite directions, their inner or adjacent edges being flush with the inner faces thereof. These plates have suitable holes or apertures formed therein, through which are adapted to be passed the screws or bolts by which they are secured in place. The inner or contacting faces or sides of the arms C and D are preferably made flat, and their upper and lower sides are formed with ribs E and F, which extend the entire length of the same.

The arm C has a channel, *e*, cut or formed in its flat inner face, which extends the entire length of the arm, and in which are formed a series of serrations or teeth, G, having vertical lower and inclined upper sides, for purposes hereinafter described.

Formed in the inner face of the arm D, near its upper or secured end, is a chamber, *f*, which is extended a short distance from the end of said arm and in which is placed a flat spring, H, it being rigidly secured therein at its lower or outer end by a rivet or bolt, *h*, extending through the same and into the arm.

The upper or free end of spring H is bent outward and protrudes somewhat beyond the side of the arm D into the channel *e* in the arm C, and comes in contact with the teeth G in said channel. To draw the free end of the spring H back into chamber *f* and below the flat face of arm D—thereby out of channel *e*—I attach a pin, I, to the said free end, which extends out through an opening in the arm D, and has a knob or hold formed on its outer end, to which may be attached a cord or other suitable means for drawing the same out, thereby forcing the end of the spring back into the chamber *f*.

To retain the arms C and D in position and prevent their spreading apart, and also to give

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rigidity to the device, and at the same time allowing a free sliding movement of the same, we place bands or clasps J over the ribs on the upper and under sides of said arms. The
 5 clasps J are rigidly secured to the upper end of arm D, adjacent to the plate d, their free ends being carried out and bent or lapped over the ribs F, while clasps K are in like manner secured to the lower end of arm C,
 10 their free ends being carried out and bent or lapped over the ribs F on the arm D. By this arrangement it will be seen that the arms are held in slight contact, but allowed a free sliding movement, the clasps preventing any lateral movement or vibration of the same.

When the transom is swung down or opened, the arm D, secured to its upper corner, will be forced down, the protruding end of spring H sliding over teeth G until the window has
 20 reached a point just above its balancing position, when the plate d on the end of arm D will come in contact with the clasps K on the arm C, and thus prevent the further downward movement; and, owing to the transom being out of balance, its tendency would be to
 25 swing back or resume its vertical position, which movement is prevented by the free end of spring H abutting against or coming in contact with the vertical sides of the teeth G, thus
 30 blocking the way and retaining the window in its lowered or opened position. By drawing the pin I out, thereby releasing the end of the spring from the teeth, the transom can be regulated so as to be partly or wholly closed, as
 35 desired, it being only necessary to allow the end of the spring to come in contact with the teeth to retain it in the desired position.

It is obvious that by reversing the arms and extending their outer ends upward our device

can be applied with the same result to transoms which are hinged at their upper sides and adapted to be raised or swung upward. It is also obvious that many minor changes in the construction and arrangement of our device can be made and substituted for those
 45 shown and described without departing from the nature and principle of our invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. A transom-holder consisting of curved arms, one of which is attached to the frame of the transom and the other to the sash of the window, the arm attached to the sash being adapted to slide upon the one attached to the frame, and a spring secured to the former for retaining the window in position, as set forth.

2. In a transom-holder, the combination of a pair of curved arms attached to the sash and frame of the window, with clasps connecting the same, and a spring secured to one of said arms to hold it in any desired adjusted position upon the other arm, as set forth.

3. In a transom-holder, the combination of a pair of curved arms adapted to be attached to a sash and frame of a window, a spring secured in a chamber formed in one of said arms, a series of serrations formed in a channel of the other arm, and clasps for retaining said arms in contact, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH J. BALL.
 JAMES A. McBRIDE.

Witnesses:

GEO. K. PRICE,
 FANNY B. RIPLEY.