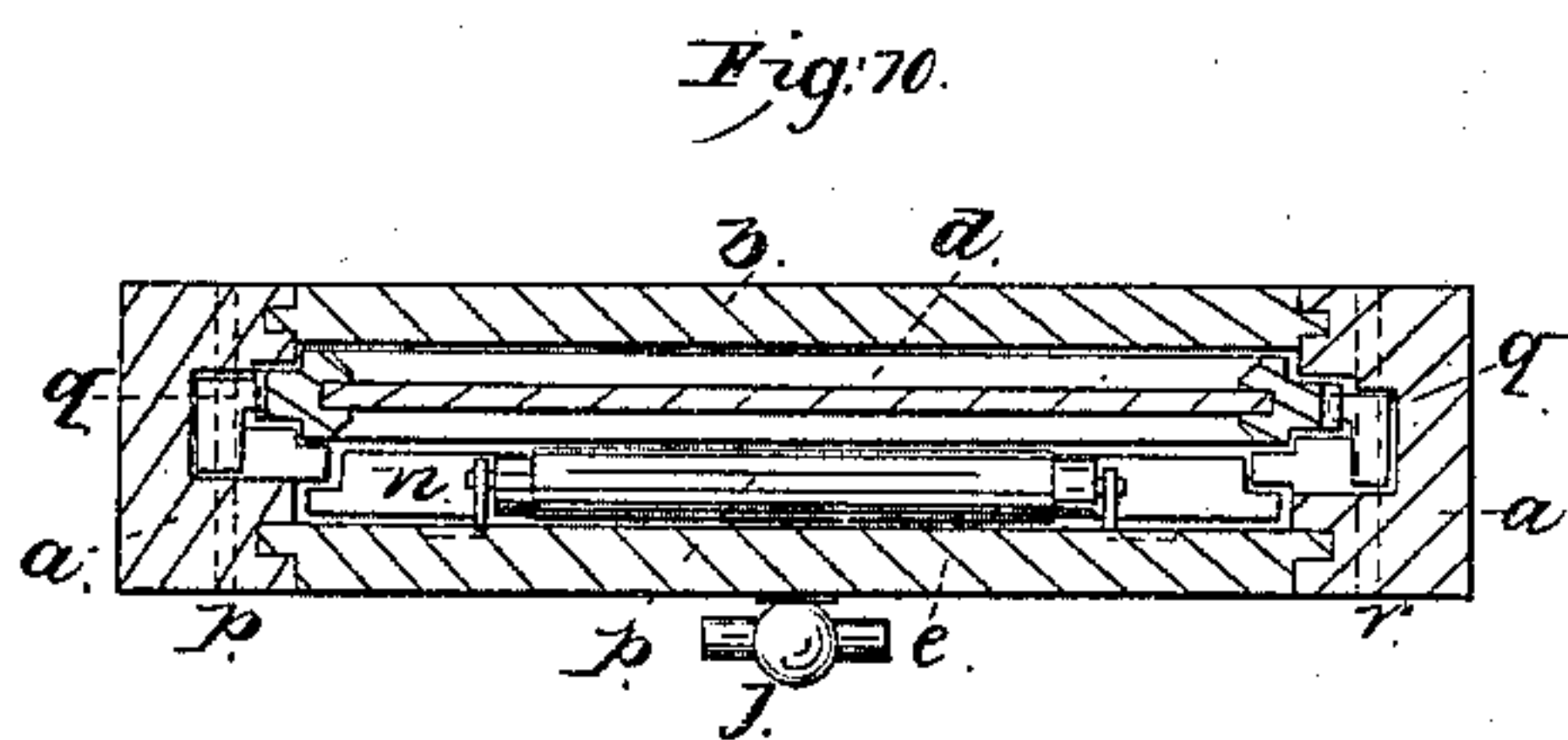
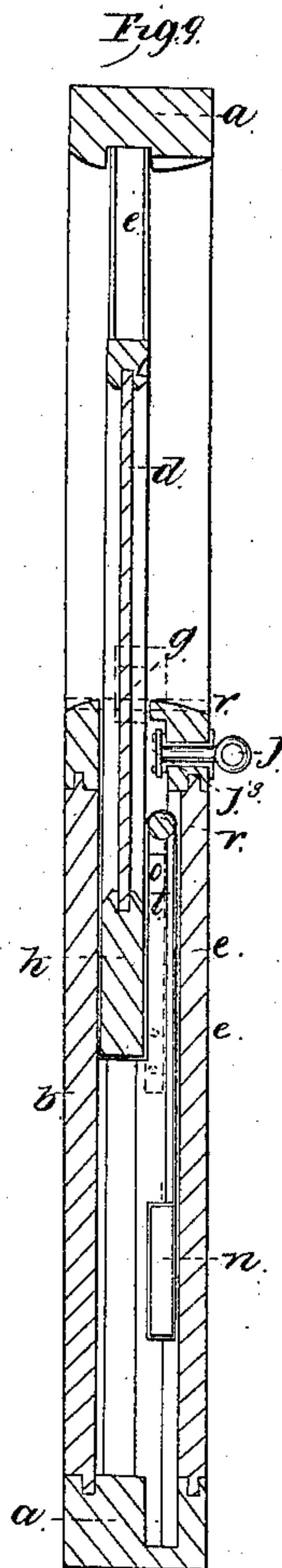
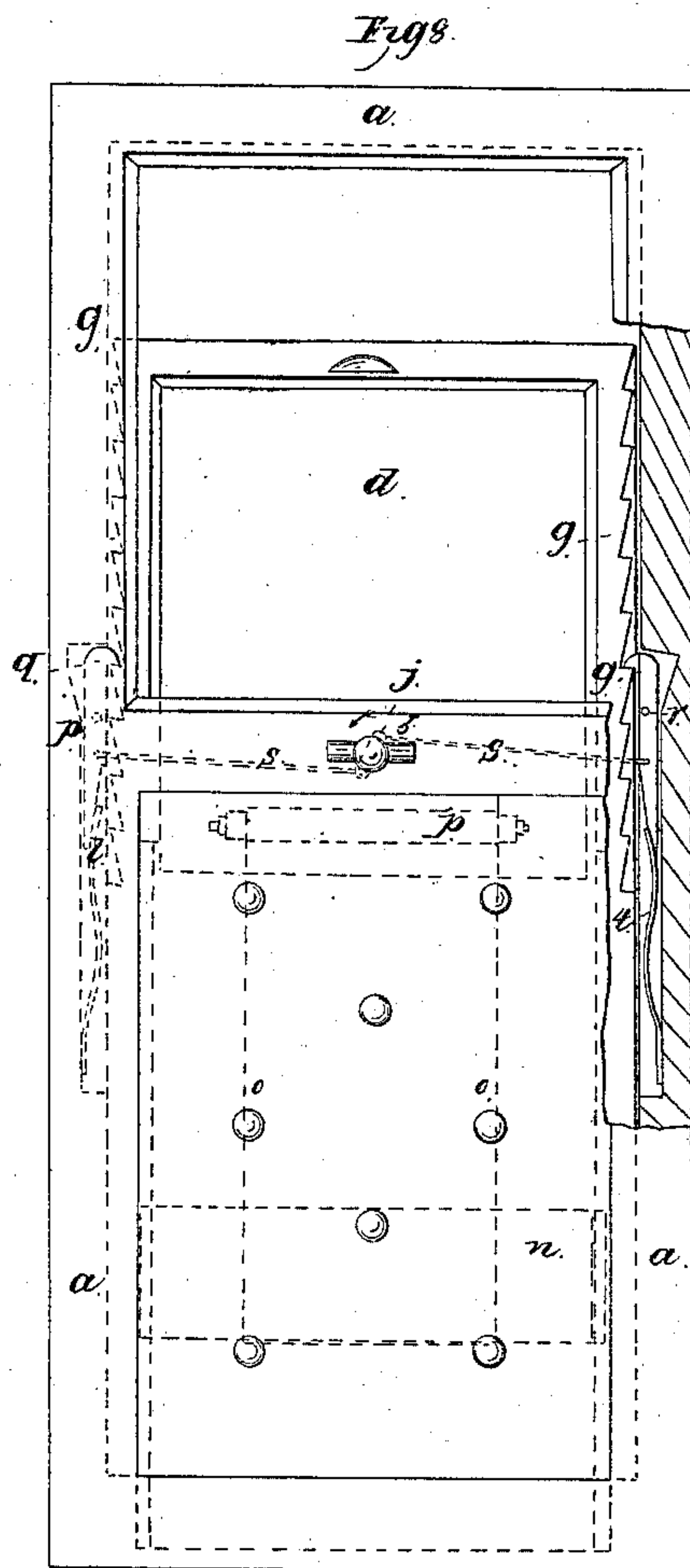


J. K. Farnsworth,
Sash Fastener.

N^o 59,521.

Patented Nov. 6, 1866.



Witnesses
Geo. A. Sewer
W. B. Farnington

Inventor:
J. K. Farnsworth.
Per. Murray & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JOHN KAY FARNWORTH, OF ALDERLEY EDGE, COUNTY OF CHESTER,
ENGLAND.

IMPROVEMENT IN SASH-FASTENINGS.

Specification forming part of Letters Patent No. 59,521, dated November 6, 1866.

To all whom it may concern:

Be it known that I, JOHN K. FARNWORTH, of Alderley Edge, in the county of Chester, England, have invented a new and useful Improvement in Operating Window-Sash; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same; reference being had to the accompanying drawings, in which—

Figure 8 is an inside elevation of a modification thereof. Fig. 9 is a transverse vertical section of the same. Fig. 10 is a horizontal section of the same.

Similar letters of reference indicate like parts.

This invention consists in the arrangement of lever-buttons and spring-catches in combination with toothed racks, secured either to the frame or casing in which the sash moves up and down, or to the edges of the sash, and with spring-catches, the position of which is governed by turning the lever-button in such a manner that by turning the lever button or buttons in one direction the spring-catches are disengaged from the teeth of the racks, and the sash or sashes are free to move up or down, and by turning the lever-button in the opposite direction the spring-catches are allowed to engage in the teeth of the racks, and the sash or sashes are sustained in the desired position.

This invention is to be applied to window-sashes which rise by the action of weights, and the arrangement of parts is such as shown in Figs. 8, 9, 10, and 11. In this case the slot *f* in the panel *c* is dispensed with, and the racks are inverted, and attached to or formed in the sash of the window *d*, which rises by the action of the weight *n*. This weight is attached to the strap *o*, passing over the roller *p*, as in

counterbalanced windows of the usual construction. The window or sash is prevented from rising by the catches *g*, which are jointed to the fulcrum-studs *r*. The handle *j* is fixed to a stud, to which is also fixed the double lever or tumbler *j'*, which connects by the links *s* with the catches *q*. These catches are pressed in gear with the racks *g* by the springs *t*, as shown, or by suitable springs or buffers of india-rubber acting on the upper part of the catches *q*. By turning the handle *j* partly round in the direction of the arrow in Fig. 8, both the catches *q* are released from the racks simultaneously, and then the window is closed, or partially closed, as desired, by the descent of the preponderating weight *n*. As soon as the handle *j* is released the springs *t*, or their substitutes, acting on the catches *q*, press them into gear with the racks *g*, to prevent the further rising of the window. In opening the window it is only necessary to press on the top of the window-frame with sufficient force to overcome the weight *n*, the ratchet-racks *g* forcing back the catches *q* during the descent of the window.

By a slight modification of the arrangement shown in Figs. 8, 9, and 10 my invention is made applicable to windows with two sashes, such as are generally used in dwelling-houses.

What I claim as new, and desire to secure by Letters Patent, is—

The lever-handle *j j'*, link *s*, and spring-catches *q*, in combination with the racks *g* in the edges of the movable sash *d*, as and for the purpose set forth.

JOHN KAY FARNWORTH.

Witnesses:

H. B. BARLOW,
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JOHN PERKINS,
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