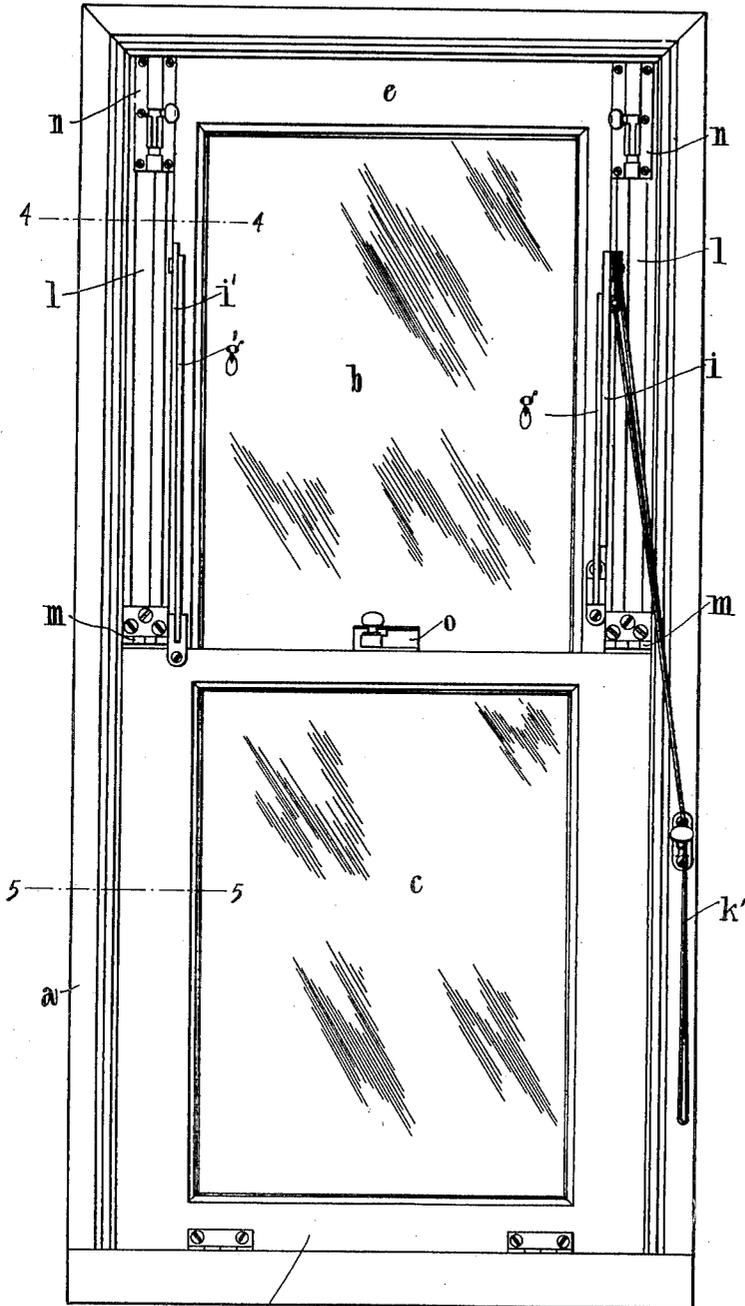


J. PETHICK.
 WINDOW.
 APPLICATION FILED OCT. 18, 1913.

1,087,913.

Patented Feb. 17, 1914.

4 SHEETS—SHEET 1.



Witnesses:
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f Fig. 1.

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4 SHEETS—SHEET 2.

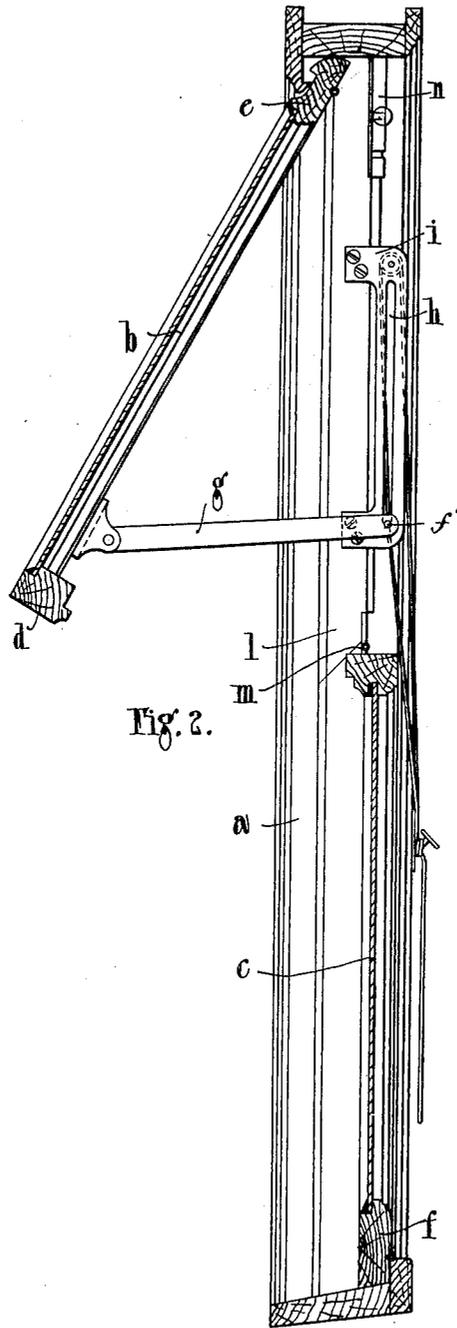


Fig. 2.

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b. a. Key
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4 SHEETS—SHEET 3.

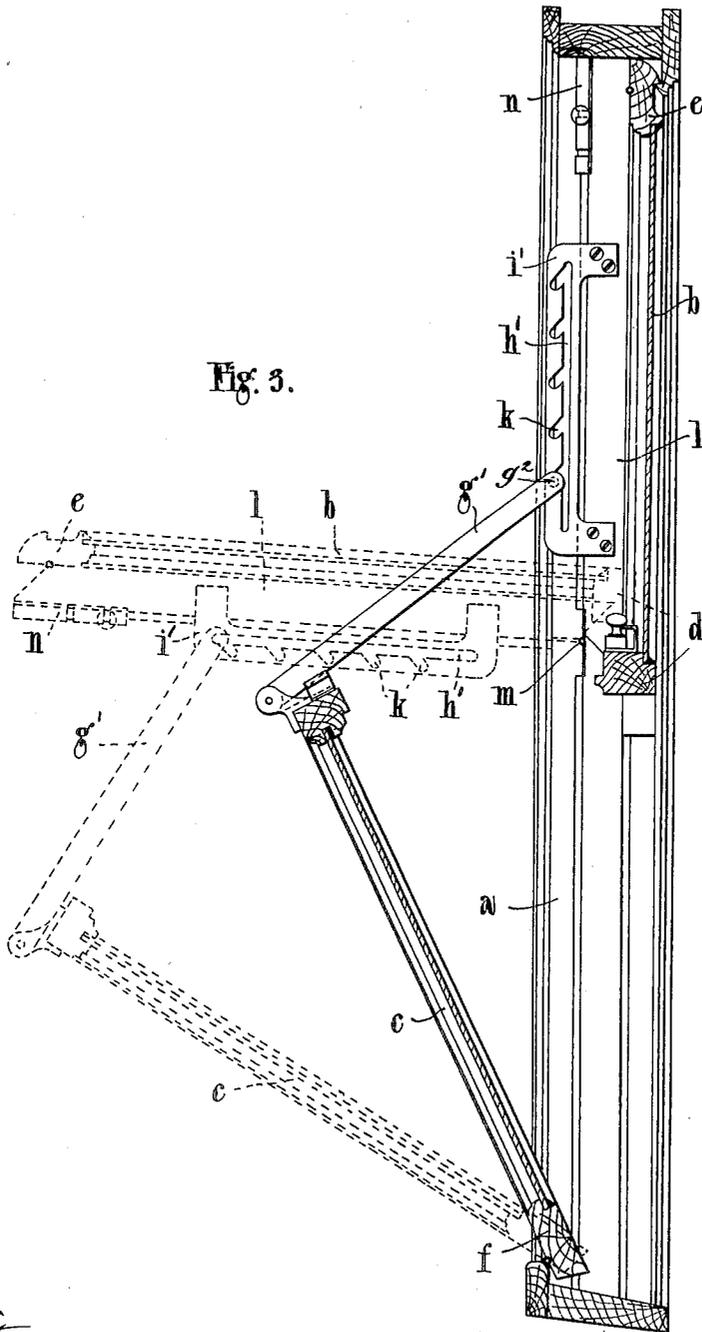


Fig. 3.

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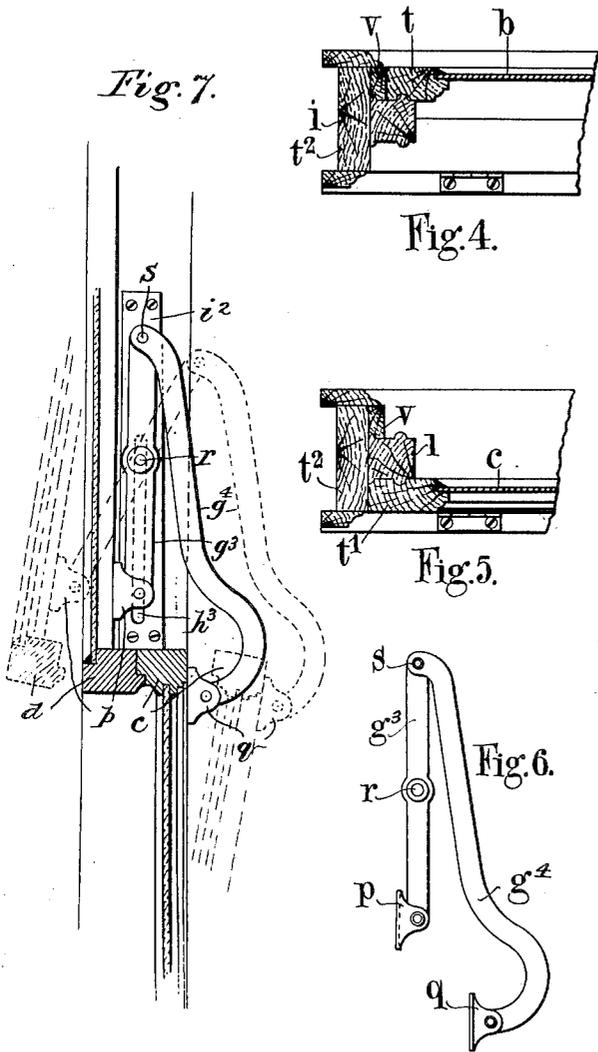
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4 SHEETS—SHEET 4.



WITNESSES

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WINDOW.

1,087,913.

Specification of Letters Patent.

Patented Feb. 17, 1914.

Application filed October 18, 1913. Serial No. 796,003.

To all whom it may concern:

Be it known that I, JOHN PETHICK, a subject of the King of Great Britain and Ireland, and residing at "Korner," Bude, in the county of Cornwall, England, have invented certain new and useful Improvements in and Relating to Windows, of which the following is a specification.

This invention relates to sash-windows and the like and has for its object to produce a device of this nature which, while being simple and cheap to construct without the necessity for the employment of the usual cords, sash-weights, and the like, shall be completely draft and weather-proof, easy to manipulate and readily accessible for renewal or repairs when required.

The invention consists in a sash-window or the like comprising two sashes pivotally mounted within the casing in such a manner that the upper sash swings outwardly while the lower sash is adapted to swing inwardly.

The invention also consists in providing means for drawing the whole of the upper sash inward when required for cleaning or other purposes.

The invention also comprises other details and arrangements hereinafter more particularly referred to.

The accompanying drawings illustrate one mode of carrying out the invention.

Figure 1 is a front elevation showing one convenient form of sash window constructed in accordance with the invention, while Figs. 2 and 3 are respectively a right and left-hand cross-sectional elevation. Fig. 4 is a section on 4-4 of Fig. 1, Fig. 5 is a section on 5-5 of Fig. 1, and Fig. 6 is a detail view of a slightly modified construction of operating levers. Fig. 7 is a side elevation of the lever construction of Fig. 6 applied to a window.

In carrying my invention into effect in one convenient manner I provide any usual form of casing or the like *a* for the reception of the window-sashes *b* *c* and the latter I arrange within the casing *a* so that they lie in different planes, their meeting rails *d* being tongued and grooved or otherwise rabbeted or suitably formed so that the meeting face or edge shall be perfectly draft and weather-proof, a suitable catch or like de-

vice *e* being provided for holding the sashes together.

I pivotally mount the sashes *b* and *c* within the casing *a* in such a manner that the upper sash *b* may swing outward while the lower sash *c* is adapted to swing inward, this arrangement allowing for the necessary ventilation while permitting the draft to ascend and in one convenient construction this may be effected by hingedly supporting the upper rail *e* of the upper sash and the lower rail *f* of the lower sash, the rails being suitably grooved and shaped to accommodate the swinging action of the sashes.

Any suitable means may be employed for adjusting the sashes to provide for ventilation and the like; for example I may pivotally connect the upper sash with one end of a lever *g*, the opposite end of the lever being provided with a pin *f'* to work in a longitudinal slot *h* of a bracket *i* fixedly supported upon the window casing, cords *k'* or other suitable operating means being provided for giving the necessary movement to the inner end of the lever *g*. In Fig. 3 of the drawings is shown a lever *g'* pivotally connected to the lower sash, the other end of the lever *g'* being provided with a transverse pin *q*² adapted to work in a longitudinal slot *h'* of a bracket *i'* fixedly supported from the casing. In this instance the longitudinal slot *h'* is shown as having lateral branches *h* adapted to be engaged by the pin *q*² to provide for holding the parts in different positions. The brackets *i* and *i'* are respectively connected to opposite upper portions of weather blocks *l*.

If it is desired to arrange for the simultaneous operation of the sashes, the construction illustrated in Fig. 6 of the drawings may be employed. Levers *g*³ and *g*⁴ are hinged together at *S* and respectively connected to the upper and lower sashes at *p* and *q*. The lever *g*³ is provided with a pivot pin *r* arranged to slide vertically in a slot *h*³ in a bracket *i*², which is fixedly secured to one of the weather blocks *L*.

To further enhance the weather-proof qualities of my improved sash-window I provide one or more weather blocks *l* between the stiles *t*, *t'*, of the upper and lower sashes respectively and abutting against the stile *t*² of the framing, the weather blocks

and stiles being conveniently fitted together with tongue and groove joints while I may also provide a further weather block fillet *v* between the inner side of the stile of the top sash and the stile of the frame.

For the purpose of providing ready access to the upper sash *b* when required for cleaning or for repairs I prefer to hinge the same to the weather block *l* between the sash stiles, the weather block itself being hinged as shown at *m* so that the upper sash of such an arrangement may be drawn inward bodily when required, as shown by the dotted lines in Fig. 3, suitable bolts *n* or stops or other catch-like devices being provided for normally retaining the hinged weather block in position.

It is to be understood that I do not confine my invention to any particular form or construction of sashes or casing for the same and where such may be desired I provide for the lower sash to swing outward and the upper sash inward.

Having now described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A window comprising a casing, a sash pivotally supported at its upper portion within the casing to swing to one side of the casing, and pivotally supported at its lower portion to swing in the opposite direction to the other side of the casing.

2. A window comprising a casing, vertically swinging parallel link members pivotally connected at their lower portions to swing to one side of the casing, a sash pivotally connected at its upper portion to the said link members at the upper portions

thereof to swing in the opposite direction to the other side of the casing, and means for fixedly securing the link members to the casing.

3. A window comprising a casing, vertically swinging parallel link members pivotally connected at their lower portions to the casing, an upper sash pivotally connected at its upper portion to the said link members at the upper portions thereof, a lower sash pivotally supported at its lower portion within the casing, and a connection between the said lower sash and one of the said link members.

4. A window comprising a casing, an upper sash pivotally supported within the casing to swing to one side of the casing, a lower sash pivotally supported in the casing to swing to the other side of the casing, and a pivotal and sliding connection between the said sashes at one end thereof and the casing.

5. A window comprising a casing, an upper sash pivotally supported at its upper portion within the casing to swing to one side of the casing, a lower sash pivotally supported at its lower portion in the casing to swing to the other side of the casing, a lever having a pivotal and sliding connection with the casing, and pivotally connected with the free end portions of the sashes.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN PETHICK.

Witnesses:

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WALTER K. TRIPE.