

No. 743,527.

PATENTED NOV. 10, 1903.

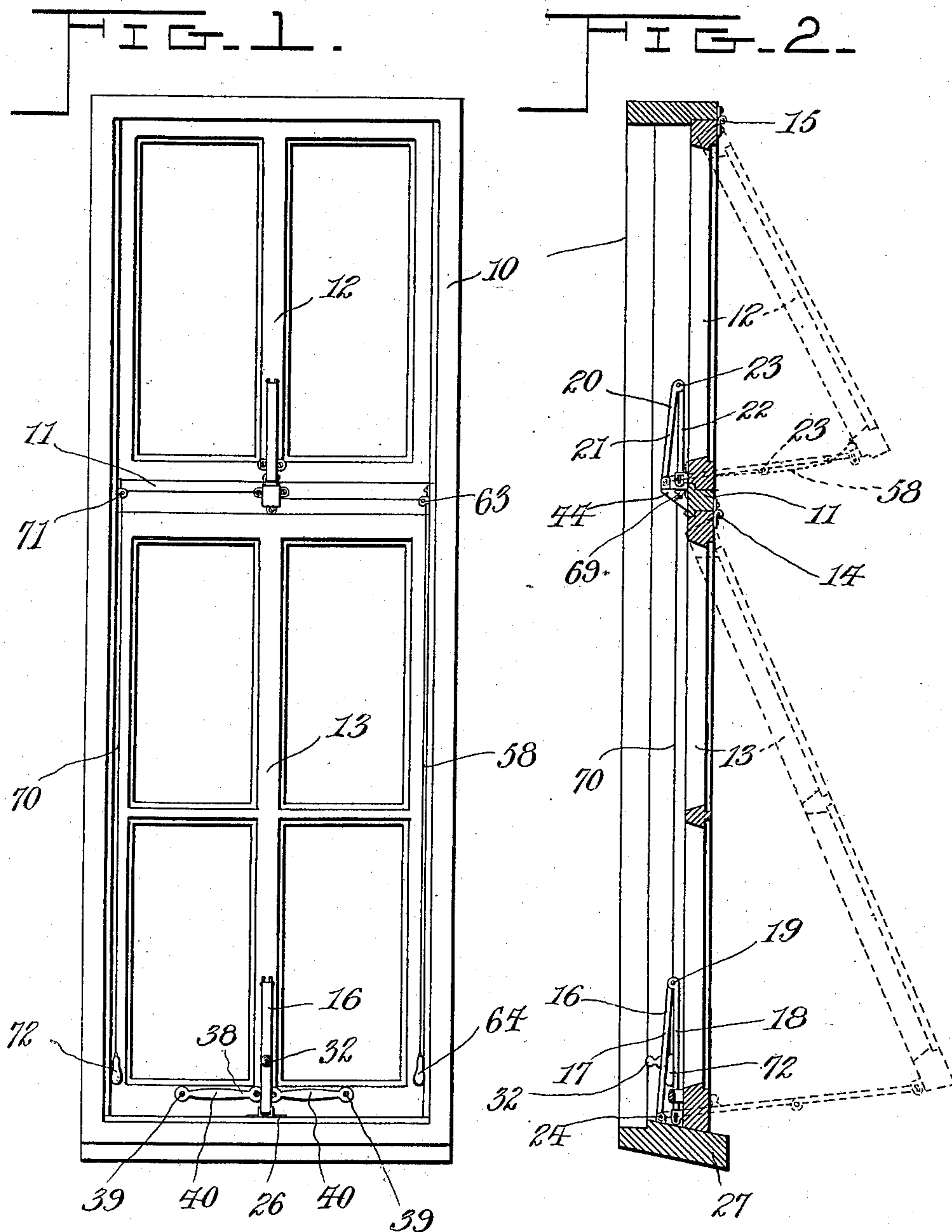
JOSEPH LEONIUS, ALIAS NILUS LECLERC.

WINDOW OPENER.

APPLICATION FILED SEPT. 2, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

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George W. Colles

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Attorneys

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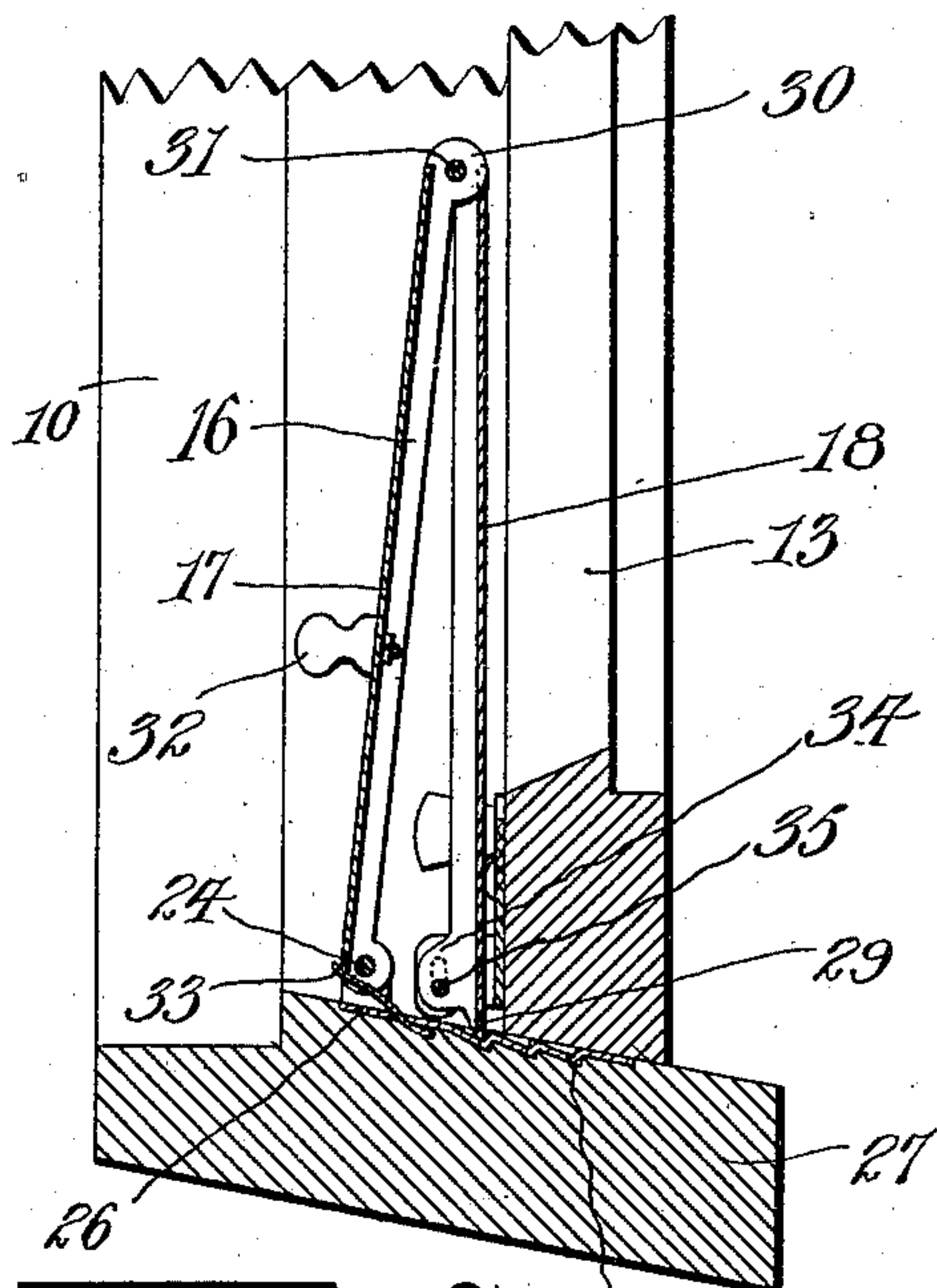
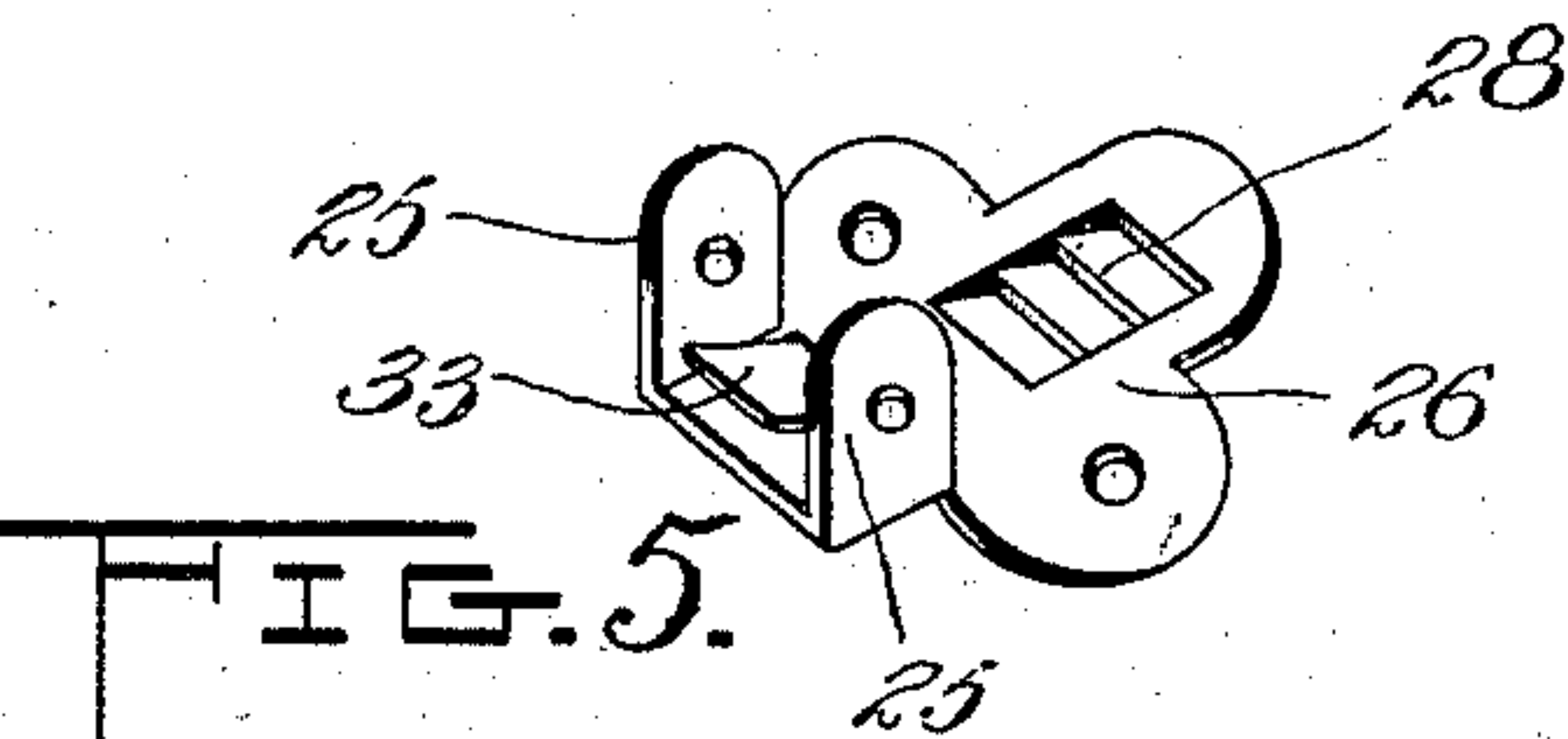
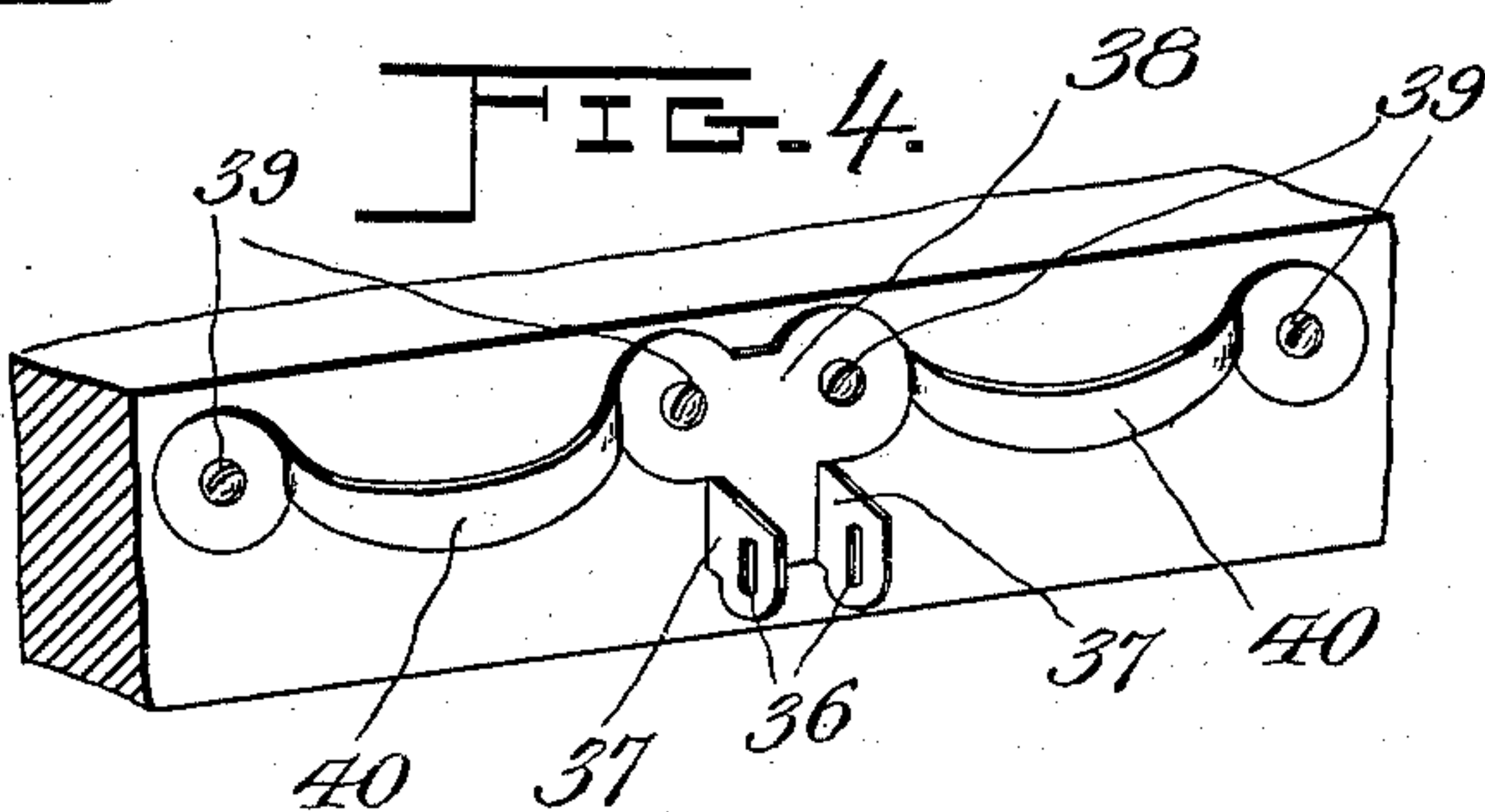


FIG. 3. 28



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UNITED STATES PATENT OFFICE.

JOSEPH LEONIUS, ALIAS NILUS LECLERC, OF ST. EUGENE, CANADA.

WINDOW-OPENER.

SPECIFICATION forming part of Letters Patent No. 743,527, dated November 10, 1903.

Application filed September 2, 1902. Serial No. 121,854. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH LEONIUS, alias NILUS LECLERC, a subject of the King of Great Britain, residing at St. Eugene, county of L'Islet, Province of Quebec, Canada, have invented certain new and useful Improvements in Window-Openers; and I do hereby declare that the following is 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.

My invention relates to a window-opener for hinged windows, and while it is applicable to all kinds of hinged windows for holding the sashes open at a definite point it is particularly applicable to and intended for those windows which are swung on horizontal hinges at the upper edges of the sashes, so as to open out at the lower edges in the nature of a shade or awning.

The object of my invention is to provide means for readily fastening the lower sash and unfastening the same and causing it to swing outwardly by a single movement of the hand and to effect the same operations with relation to the upper sash by means of the pull-cords arranged at the sides of the window-frame.

My improved window-opener is illustrated in the accompanying drawings, wherein—

Figure 1 is a front inside elevation of a complete window-casing with horizontally-hinged upper and lower sashes and my improved window-opener attached to each sash. Fig. 2 is a longitudinal section through the parts shown in Fig. 1. Fig. 3 is a fragmentary section, on an enlarged scale, taken longitudinally through the center of the lower window-opener. Fig. 4 is a detail perspective view of the central part of the lower sash-rail and the handle-casting attached thereto. Fig. 5 is a perspective view of the catch-piece for the lower sash.

The same numerals of reference denote like parts in all the figures of the drawings.

The window-casing 10 has crossing it midway a horizontal sill-piece 11, which separates the upper sash 12 from the lower sash 13 and forms a support for the latter, which is hinged thereto by hinges 14. The upper sash 12 is likewise hinged to the top piece of the window-casing, as at 15, whereby both sashes are

permitted to swing outwardly in the manner shown in dotted lines in Fig. 2. The window-opener 16 of the lower sash consists of a pair of folding members 17 18, which are hinged together, as at 19, by an elbow-joint, and their free ends are connected to the window-sill and lower rail of the sash, respectively, as shown. The upper window-opener 20 likewise consists of folding members 21 and 22, pivoted to each other at 23 and connected in like manner to a stationary part of the frame and the lower sash-rail of the upper sash 12. The upper window-opener may, if desired, be made exactly like the lower window-opener; but as in my preferred construction it differs somewhat for purposes of convenience from the latter it has been made the subject of and specifically claimed in my divisional application, Serial No. 133,337, filed December 1, 1902, but is also generically covered by the claims of this application.

The lower window-opener is shown in enlarged sectional view in Fig. 3 in closed position. The stationary attachment is formed by a pivot-pin 24, which passes through a pair of upstanding ears 25, formed on the catch plate or casting 26, as shown in enlarged perspective in Fig. 5, and is secured to the upper surface of the window-sill 27, being mortised and set flush therewith. This plate has formed on its upper side a series of vertical teeth or corrugations 28, which are directed inwardly and are for the purpose of forming variably-positioned catches for the projecting lower end or nose 29 of the member 18 of the opener. Both the members 17 18 are preferably stamped out of sheet metal in channel form, as shown, having ears 30 at their adjacent ends, through which passes the pivot-pin 31. The piece 17 has mounted thereon, at some point midway thereof, a suitable handle-knob 32 for easy manipulation, and against its lower end presses a leaf-spring 33, which is embedded in the latch-piece 26, as shown, and exerts its pressure on the central member of the channel-shaped piece 17, so as to be at one side of the pin 24 and tend to turn the opener in a right-handed direction, as shown in Fig. 3, thus bringing the nose 29 of the member 18 into engagement with one of the teeth 28. The piece 18

has ears 34 formed on its lower end above the nose 29, in which is mounted a transverse pin 35, and the ends of this pin have a limited vertical sliding movement in slots 36, 5 formed in a pair of parallel ears 37 on a stamped handle plate or casting 38, which is secured to the lower sash-rail by screws 39 and has any suitable operating-handles 40 formed thereon, as shown in Fig. 5. It will 10 be seen that the connection between the member 18 and the plate 38 is such that when open the piece 18 has substantially a mere turning movement about the ears 37 necessary to enable it to fold up; but when closed 15 the spring 33 is brought into operation to give the nose 29 a continuous yielding pressure against the teeth 28.

In the operation of the sash the handle 32 is first drawn back or inwardly toward the 20 operator, so as to release the nose 29 from the tooth 28, with which it is engaged, and by then grasping the handle 40 and pushing the sash outwardly the opener will straighten out into the position shown in dotted lines in 25 Fig. 2 and will hold the sash open. In closing it is only necessary to grasp the knob 32 and draw it inwardly and upwardly, whereupon the sash will fall shut, and the nose 29 will fall into engagement with one of the 30 teeth 28 as soon as the handle 32 is released. The tightness of the closure is regulated by the amount of pull which may be exerted on the sash by one of the handles 40.

While I have shown in the accompanying 35 drawings the preferred form of my invention, it will be understood that I do not limit myself to the precise form shown, for many of the details may be changed in form or position without affecting the operativeness or 40 utility of my invention, and I therefore reserve the right to make all such modifications as are included within the scope of the following claims or of mechanical equivalents to the structures set forth.

45 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A window-opener comprising a pair of 50 folding members hinged together by an elbow-joint, one of said folding members being pivotally mounted on the window-sill and the other being pivotally connected to the lower rail of the sash and having a limited reciprocation upon its pivot, a projecting nose 55 formed on the latter of said folding members, a catch-piece mounted on the window-

sill with which said nose is adapted to be engaged, and a torsion-spring pressing upon said first-named folding member to bring said projecting nose into engagement with said 60 catch-piece.

2. A window-opener for window-sashes swung on horizontal pivots at their upper edge comprising a pair of folding members connected together by an elbow-joint, a pivot- 65 piece adapted to be fixed to the window-sill and pivotally connected to one of said folding members, a second pivot-piece having slotted pivot-ears with which the other folding member is pivotally connected so as to 70 have a slight vertical reciprocation, a spring pressing against the heel of the first-named folding member, a projecting nose formed on the lower end of the second folding member, and a catch-piece set in the window-sill with 75 which said projecting nose is adapted to be engaged.

3. A window-opener for window-sashes swung on horizontal pivots at their upper edge comprising a pair of folding members 80 connected together by an elbow-joint, a pivot-piece adapted to be fixed to the window-sill and pivotally connected to one of said folding members, a second pivot-piece having slotted pivot-ears with which the other fold- 85 ing member is pivotally connected so as to have a slight vertical reciprocation, a spring pressing against the heel of the first-named folding member, a projecting nose formed on the lower end of the second folding member, 90 and a catch-piece set in the window-sill with which said projecting nose is adapted to be engaged, said catch-piece having a series of inwardly-directed teeth, whereby the closed position of the sash may be varied. 95

4. A window-opener comprising a pair of folding members hinged together by an elbow-joint, one of said folding members being pivotally mounted on the window-sill and the 100 other being pivotally connected to the lower rail of the sash and having a limited reciprocation upon its pivot, a projecting nose formed on the latter of said folding members, and a catch-piece mounted on the window-sill with which said nose is adapted to be en- 105 gaged.

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

JOSEPH LEONIUS, ALIAS NILUS LECLERC.

Witnesses:

J. B. HUDSON,
C. LECLERC.