

No. 747,616.

PATENTED DEC. 22, 1903.

A. F. W. LORIE.
SASH FASTENER.

APPLICATION FILED JULY 2, 1902.

NO MODEL.

FIG. 1.

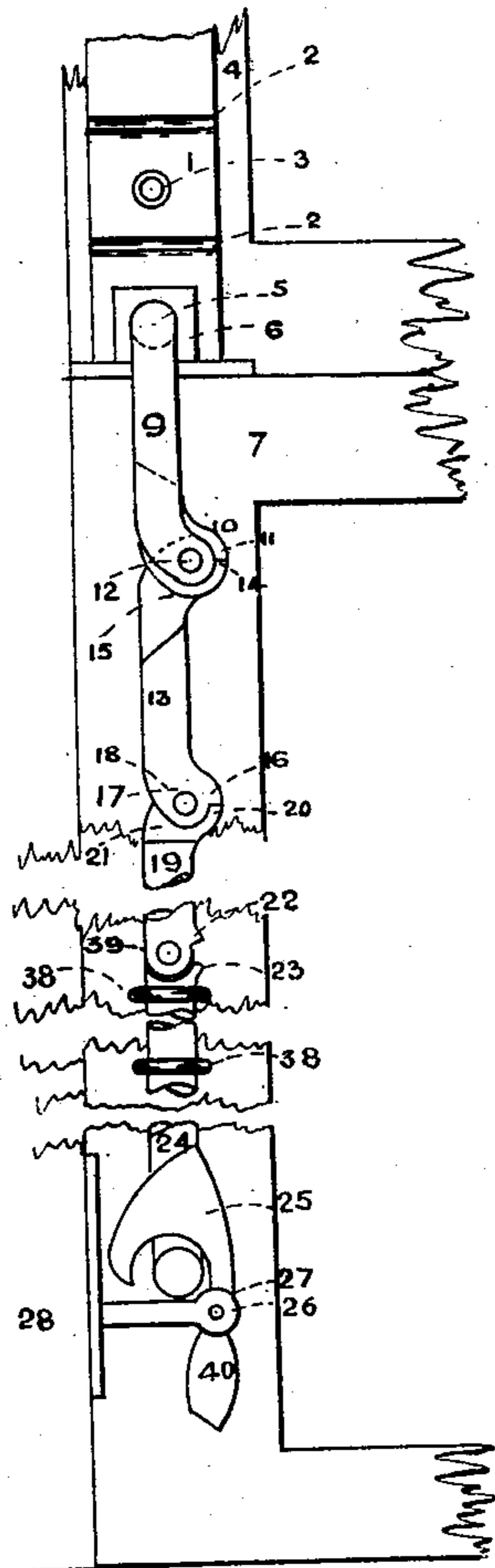


FIG. 2.

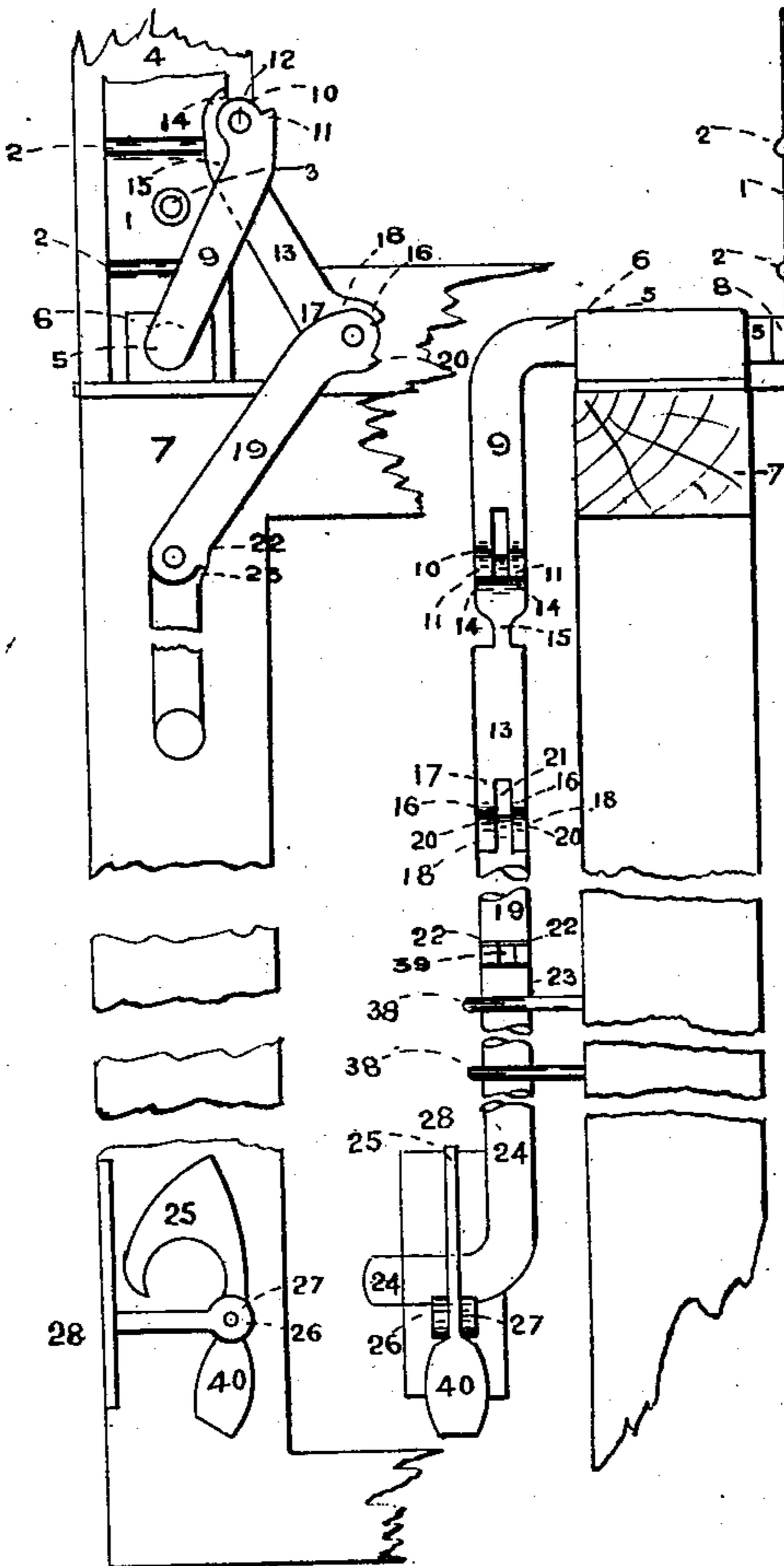


FIG. 3.

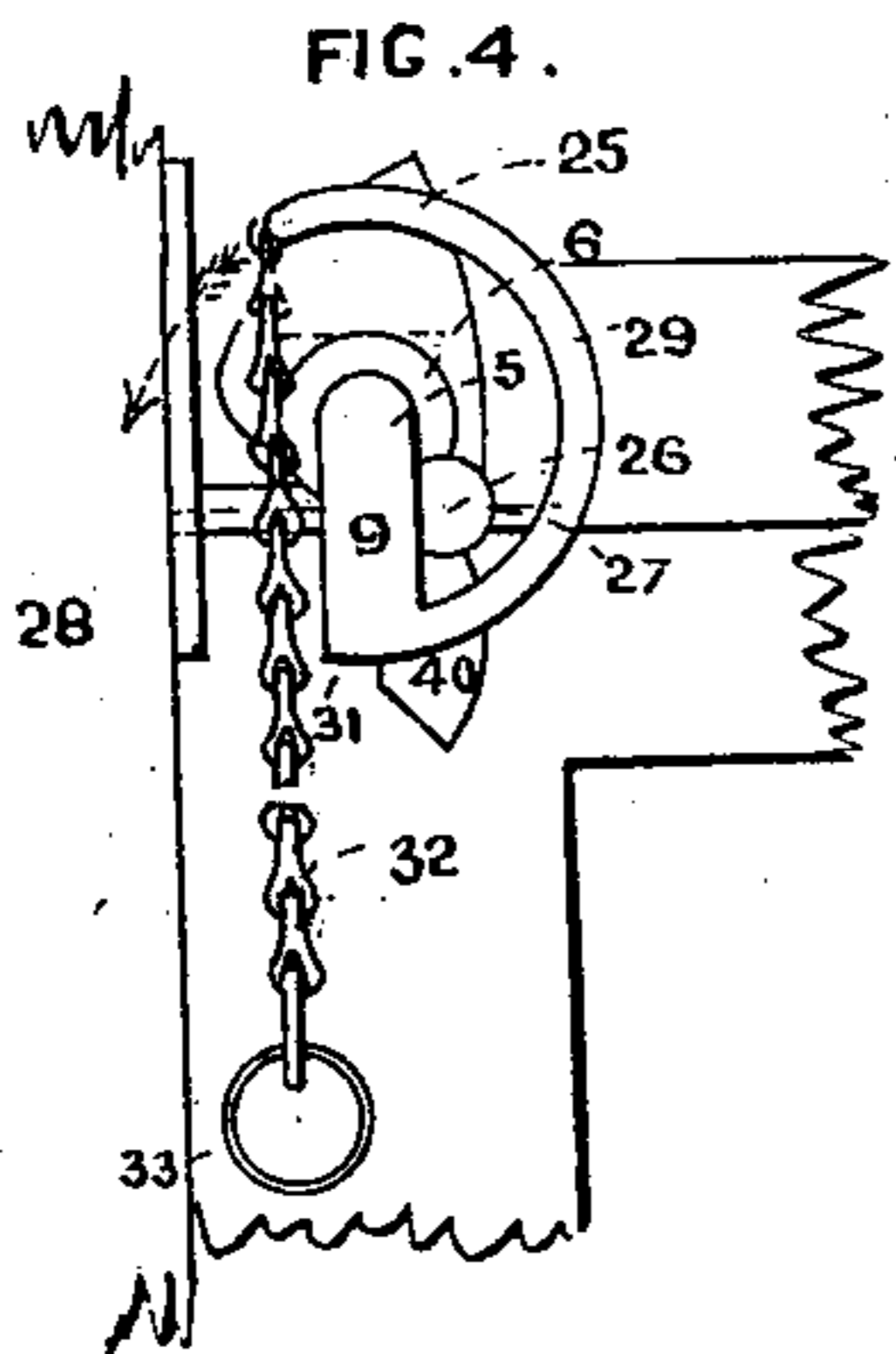


FIG. 5.

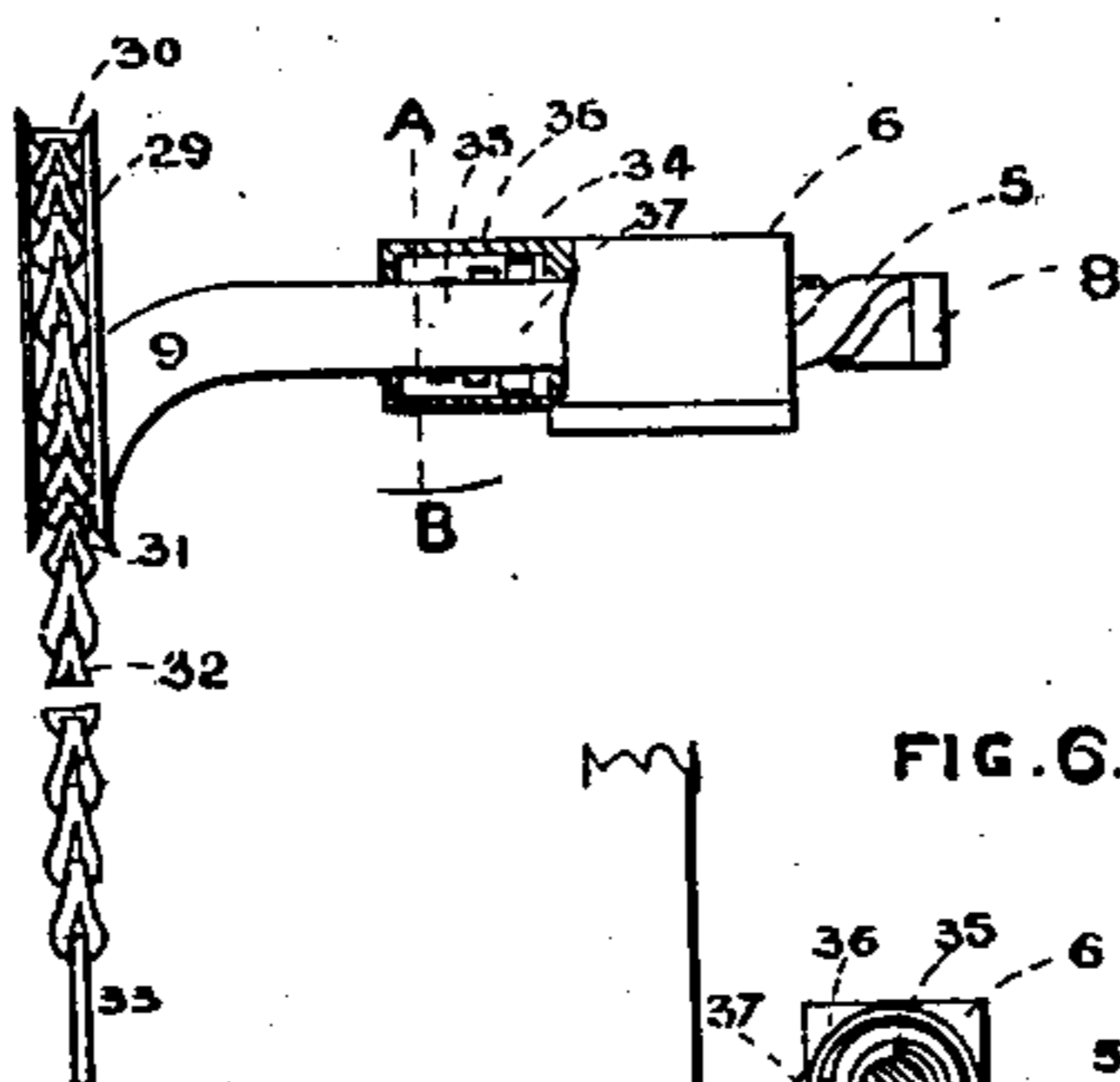
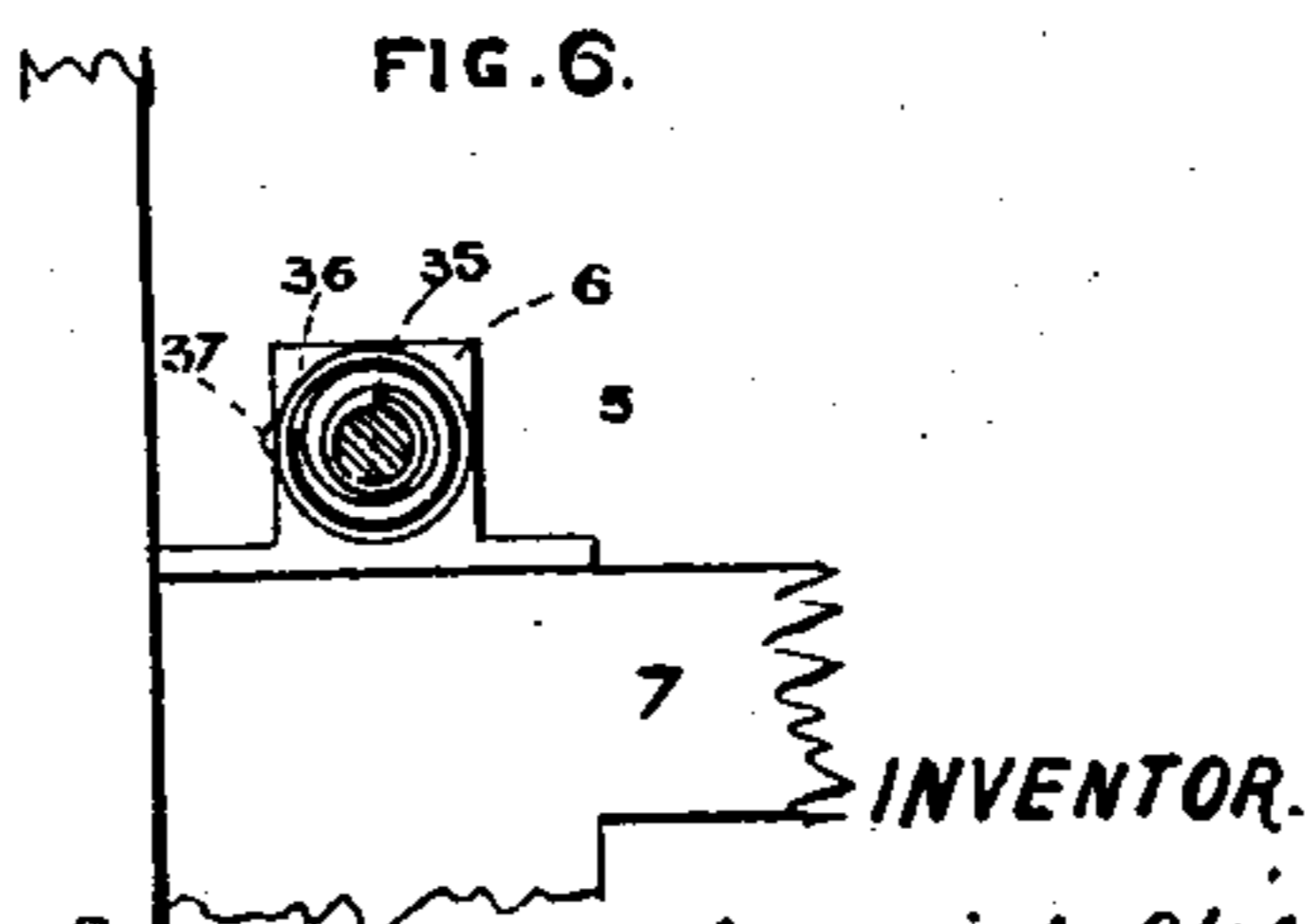


FIG. 6.



WITNESSES:

Wm. Aldom
Com' Judge

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Adolph Frederick William Lorie

BY

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UNITED STATES PATENT OFFICE.

ADOLPH FREDERICK WILLIAM LORIE, OF DUNEDIN, NEW ZEALAND.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 747,616, dated December 22, 1903.

Application filed July 2, 1902. Serial No. 114,130. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH FREDERICK WILLIAM LORIE, a British subject, residing at Princes street, Dunedin, New Zealand, have
 5 invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification.

My invention relates to improvements in sash-fasteners by which the top sash can be
 10 secured in any position open or closed by thrusting the sashes apart. Means are also provided to effect this automatically, so that the normal position of the fastener may be that of thrusting the sashes apart. Further
 15 means are provided attached to the window-frame which automatically engage a part of the fastener so as to prevent the raising of the lower sash. These features and combination and arrangement of parts are herein-
 20 after described and are particularly pointed out in the claims.

In the drawings the same numerals of reference indicate the same parts.

Figure 1 is a front view of the fastener in
 25 one form, showing the sashes locked. Fig. 2 is a front view of the fastener, showing the sashes unlocked. Fig. 3 is a side view of Fig. 1. Fig. 4 is a front view of the fastener in another form, showing the sashes locked.
 30 Fig. 5 is a side view of Fig. 4. Fig. 6 is a sectional view at A B, Fig. 5.

Figs. 1, 2, 3, 4, 5, and 6 illustrate means for operating the screw and for automatically
 35 keeping the stop 8 pressed against a strip 1, said strip or some equivalent therefor being necessary when such means are used.

Following is a detailed description of the invention illustrated in Figs. 1, 2, and 3. A
 40 strip of metal 1 with corrugations 2 thereon is adapted to be fastened to a vertical side rail 4 of the top sash of a window. A screw 5, coarsely pitched for quick travel, having its inner end provided with a stop 8, works in a nut 6, secured to the top of the lower sash
 45 7, flush with the edge thereof. The inner end of screw 5 is bent at right angles to form a lever 9, which has attached thereto rods or levers 13 19 24, more particularly hereinafter described, having the lower end of lever 24
 50 bent so as to engage automatically the balanced hook 25, secured to the inner side 28 of the window-frame. The lever 13 is con-

nected to the lever 9 by a forked joint 10, provided with lugs 11 on its jaws, having their faces at right angles to lever 9 and in
 55 line with the center of the pin 12. The lever 13 is provided with lugs 14, cast to the tongue 15, corresponding to the lugs 11, so that when the levers hang as shown in Fig. 1 the lugs 11 and 14 form a stop to prevent the
 60 fork-joint from operating the lever 9 in the wrong direction. The lower end of the lever 13 has a forked joint 17, attached similar to that of lever 9. The lugs 16 on the jaws 18 of the fork 17 form stops to corresponding
 65 lugs 20 on the tongue 21 of the fork-joint attached to lever 19. The lower end of lever 19 has also a fork-joint attached similarly to those on levers 9 and 13. The lugs 22 form a stop to corresponding lugs 23 on the tongue
 70 39 of the joint which is attached to the lever 24. The guide-brackets 38, secured to the side rail of the bottom sash, are adapted to allow the lever 24 to slide therethrough. The lower end of lever 24 is bent so as to en-
 75 gage the balanced hook 25, which is supported by bracket 26 and pivot 27, the bracket 26 being secured to the inner side 28 of the window-frame.

In Figs. 4, 5, and 6 means are shown for
 80 operating the screw consisting of a semicircular lever 29 on the screw, with a chain 32 lying in a groove 30 of the said lever and attached at 31. A spring 34, secured to the screw at 35 and to the casing 36 at 37, turns the
 85 screw and projects it against the sash when the chain is released. The balanced hook 25 in this form engages the screw-spindle directly. This modified form of the invention is not claimed specifically by me herein, but
 90 forms the subject of another application for Letters Patent of the United States, filed by me July 29, 1903.

When the device is fitted as illustrated in Figs. 1, 2, and 3, the balanced hook is opened
 95 by one hand, which is then also in position to lay hold of the bent end of lever 24. The levers are then shoved upward, by which means the screw is retracted, and the top sash may be moved to any position by the
 100 other hand. On releasing the lever 24 the whole series of levers by their weight fall to a vertical position, thrusting forward the screw 5 to engage the strip 1, and the bent

end of lever 24 simultaneously opens the balanced hook 25, which immediately and automatically closes thereon and secures it. Should the end of the screw strike against a corrugation, a slight shaking of the sashes will cause it to slip into its proper place on the strip.

The effect of my invention is that the top sash can be secured in any position open or closed by pulling it up or down and giving a part turn to the screw 5. When the handle 9 of the screw 5 is up, the point of the screw is withdrawn into the nut 6 and the top sash can be freely moved; but when the handle of the screw 5 is down the point of the screw 5 is forced out against the plate 1, making both sashes absolutely rigid and immovable even without the corrugations on said plate, which are added as a further security should force be used to open the window from the outside. When the handle of the screw 5 is down, rattling of the windows is entirely prevented. My invention is effective no matter on what part of the plate the screw sinks, while no other appliances known to me are effective unless the bolt or catch used is directly opposite to the place it has to occupy. In my invention the balanced hook 25 makes it impossible for the bottom sash to be opened from the outside if the top one is inadvertently left unfastened, as the hook 25 is so balanced that it will not remain open unless held back. To open the bottom sash when neither the series of levers nor the spring is used, it is only necessary to push inward the weight 40, when the window is free. The mere action of pulling down the lower sash fastens it automatically, as the top of the hook is so constructed that it opens when struck by the screw 5 and is at once closed by the weight 40. All that is necessary to open or close the top sash is a part turn up or down of the screw-handle, or if in addition it is desired to open the lower sash the balanced hook has only to be moved on its pivot to free the screw. Either is done with one finger and as easily in the dark as in the light, as these attachments work with the sashes in any position and without any necessity for getting them into particular corresponding levels or into a particular line, as is required by all appliances previously known to me. The whole of the attachments can be quickly affixed to windows of the class shown without any cutting or alterations to the sashes or frames.

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

1. In a sash-fastener, a screw, a nut through which said screw works to engage a part of the window, an operating connection extending downwardly from the screw and means at the inner end of the said screw for converting the vertical movement of the operating connection to a rotary movement in the screw, substantially as described.

2. In combination in a sash-fastener, a nut, a screw working through the same to engage a part of the upper sash and an automatic locking device on the frame associated with the said screw, substantially as described.

3. In combination in a sash-fastener, a nut, a screw working through the same to engage a part of the upper sash and a gravity-hook on the frame associated with the said screw, substantially as described.

4. In a sash-fastener, a nut, a screw working through the nut and having a bent inner end and a jointed operating-rod connected to said bent end, substantially as described.

5. In a sash-fastener a nut, a screw working through the same, an operating connection extending from the screw and a lock for the said operating connection, substantially as described.

6. In combination in a sash-fastener, a nut, a screw and means extending down along the sash for operating the screw, the weight of said means automatically setting the screw in holding position, substantially as described.

7. In combination in a sash-fastener, a nut, a screw, means for operating the screw, said means by its weight operating to set the screw in holding position and an automatic lock associated with said operating means, substantially as described.

8. In combination in a sash-fastener, a nut, a screw, a rod connected with the screw for turning the same, said rod by its weight returning the screw to its locking position and an automatic lock for said rod, said lock comprising a gravity-hook engaging the lower bent end of the rod, substantially as described.

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

ADOLPH FREDERICK WILLIAM LORIE.

Witnesses:

SPENCER BRENT,
J. R. PARK.