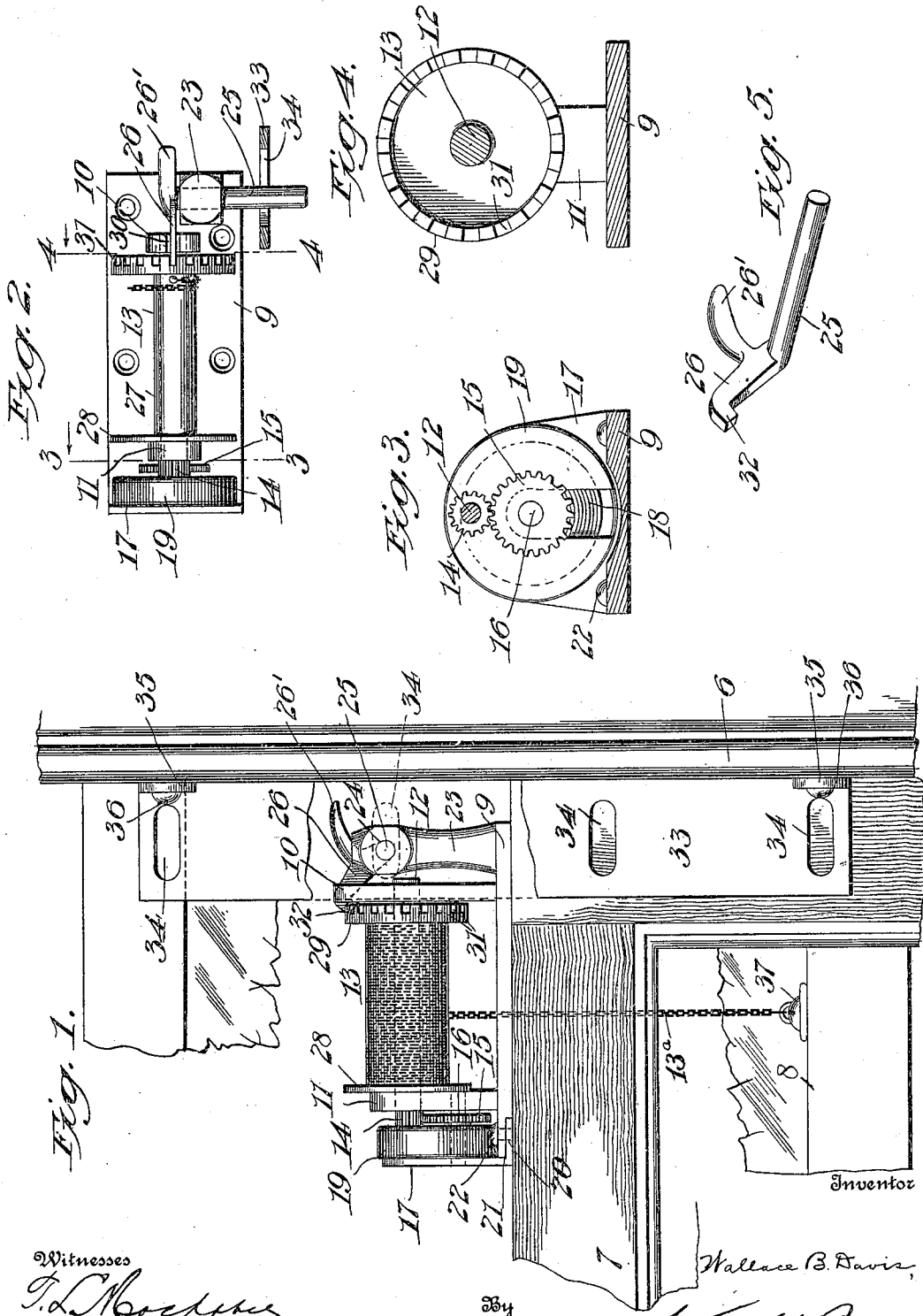


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WINDOW LOCK.

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Patented Mar. 29, 1910.

953,322.



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WINDOW-LOCK.

953,322.

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To all whom it may concern:

Be it known that I, WALLACE B. DAVIS, a citizen of the United States, residing in the city of Asheville, and in the county of Buncombe and State of North Carolina, have invented certain new and useful Improvements in Window-Locks, of which the following is a specification.

This invention relates to improvements in sash fasteners and consists in the parts and combination of parts hereinafter pointed out.

Figure 1 is a detail view of a window frame and sashes with my invention attached thereto. Fig. 2 is a top plan view of my invention removed from the window. Fig. 3 is a sectional view of same taken on the line 3—3 of Fig. 2. Fig. 4 is a sectional view taken on the line 4—4 of Fig. 2 looking in the direction of the arrow. Fig. 5 is a detail view of the locking member.

In the drawing like numerals designate like parts throughout the several views.

In the preferred embodiment of my invention as shown in the accompanying drawing, the numeral 6 indicates a window frame, provided with the lower and upper sashes 7 and 8 respectively. Secured adjacent to one corner of the meeting rail of the lower sash is a reel and its associated parts, comprising the supporting base 9 provided with posts 10 and 11 which have bearings wherein the shaft 12 of the reel 13 is journaled. This reel carries a flexible cable 13^a, the free end of which is secured to the meeting rail of the upper sash. A pinion 14 is rigidly secured to one end of the shaft 12 and is adapted to mesh with the gear 15 which is carried by the spindle 16. One end of the spindle 16 is journaled in the post 11, while the other end is likewise journaled in the end plate 17. A spring 18, which will be referred to more specifically hereinafter is attached to the spindle 16 and is inclosed within the casing 19. This casing which is substantially cylindrical in shape is secured to the end plate 17. It will be noted in Fig. 1 that this end plate is provided with an angular flange 20, at its lower end, which fits in a cutaway portion 21 of the base 9, and is secured thereto by means of a bolt 22.

An upwardly extending arm or post 23, which has a bearing 24 wherein the locking member 25 is journaled is secured to the base 9. This post 23 is located adjacent to

the post 10 but to one side of the center thereof as shown in Fig. 2.

The locking member consists of a shaft 25 provided at one end with an angular projecting latch 26, said latch being provided with an operating handle 26'.

The reel 13 comprises an axle 27 and two annular flanged members 28 and 29 secured one at each end of the axle. The annular flanged member 29 is provided with crown teeth 31, the said crown teeth being arranged so that they will as the reel is rotated, register successively with the bifurcated portion 30 of the post 10.

The locking member 25, as has been stated heretofore, is adapted to pass through the bearing formed in the post 23. The inward lateral movement of the key 25 in the said bearing will be limited by the angular latch portion 26 coming in contact with the post 23. It will be noted that, while the said member is prevented from further lateral movement in the direction of the post, it is susceptible of a rotary movement in the bearing in the post 23, and upon being rotated, the latch portion 26 will enter and extend beyond the bifurcated end of the post, the extreme end or tooth of said latch engaging in one of the crown teeth 31.

I have provided a keeper 33, consisting of a plate or strip of any suitable material, preferably steel, which is secured to the frame of the window. This keeper is provided with a series of catches 34 and is so located on the frame that the lowest catch will be in alinement with the bearing 24 formed in the post 23, when the lower sash is in its closed position. If it is desired to lock the sashes in their normally closed position, the shaft portion of the locking member 25 is passed through the bearing 24 and into engagement with one of the catches on plate 33. The lower sash will thus be positively locked against movement. If it should be desirable to lock the upper sash against downward movement, the locking member 25 is rotated so that its latch portion 26 will engage the crown tooth wheel 32 thus preventing the reel from rotating and therefore preventing downward movement of the upper sash.

It will be understood that the keeper 33 may be provided with as many catches as desired, and that it may extend the entire length of the window. This keeper may be

secured to the window frame by any suitable means, but I prefer to form angular ears 35 at spaced intervals on the body of the keeper, the said ears provided with bearings which are adapted to receive fastening means 36.

From the foregoing description, it will be seen that the operation of my device is as follows: Whenever it is desired to open 10 the upper and lower sashes of the window a certain degree, for the purpose of ventilation, the sashes are operated in the usual manner. As the meeting rails of the sashes separate, the flexible cable, which is carried 15 by the reel, the free end of said cable being secured as at 37 to the meeting rail of the upper sash is let out or unwound thus rotating the reel. By rotating the reel, it will be seen that the spring 18 is wound on the 20 spindle 16 thereby putting it under tension. When the sashes are adjusted the desired degree the shaft 25 of the locking member is inserted and passed through the bearing in post 23, and into engagement with one of 25 the catches 34 in the plate 33, whereby the lower sash will be positively locked. By rotating the locking member and thus throwing the tooth thereof, into engagement with the crown teeth 31, the sashes will be locked 30 against relative movement. In order to relieve the latch 26, from undue strain, I provide a notch in the upper end of the post 10, into which the said latch drops.

Having thus described my invention, what 35 I claim as new and desire to secure by Letters Patent is:—

1. In a device of the class described, the combination with the sashes of a window, of an automatic take-up comprising a self 40 actuated reel adapted to be secured to one of said sashes, and flexibly connected to the other of said sashes, a keeper secured to the window frame, having a plurality of catches, and a locking element constructed 45 and arranged to engage with one of the catches on the keeper and also with said take-up whereby the sashes will be held in their adjusted positions.

2. The combination of a spring actuated 50 reel secured to the lower sash of a window, a chain carried by said reel, the free end thereof secured to the upper sash, lock receiving means secured to the window frame, and a locking element adapted to engage 55 the said reel, and prevent rotation thereof and also to engage said lock receiving means secured to the frame whereby the lower sash will be locked against movement.

3. In a sash lock the combination with a 60 spring actuated reel adapted to be secured to the meeting rails of one sash of a window, flexible means carried by said reel, the free end of said means adapted to be connected

to the meeting rails of the other sash, with a lock receiving member secured to the window frame and a locking element adapted to 65 engage said reel and also to engage the lock receiving member whereby the lower sash will be positively locked and the upper sash will be held against downward movement. 70

4. The combination of a reel and its apertures adapted to be secured to the window sash comprising a base, reel supporting arms secured thereto, spring means adapted to rotate said reel; a post secured 75 to said base and located adjacent to one of the reel supporting arms, said post provided with a bearing, of a steel plate, provided with apertures, and secured to the window frame, and locking means 80 adapted to be journaled in the above mentioned post, one end thereof adapted to engage in the apertures formed in said plate, while the other end of said locking means engages with the reel, as and for the 85 purpose set forth.

5. In a sash fastener the combination with a reel, a spring wound upon the shaft of said reel, standards in which said reel is journaled, a crown toothed wheel secured 90 to one end of the reel shaft a locking member constructed to engage said crown toothed wheel, a plate adapted to be secured to a window frame and provided with a series of catches means on the locking member constructed to engage the said keepers, and a 95 chain wound upon said reel.

6. In a sash fastener the combination of a spring actuated reel secured to the meeting rail of the lower sash, of a window, a chain 100 carried by said reel, the free end thereof secured to the meeting rail of the upper sash, a crown tooth wheel secured to one end of said reel, a standard located adjacent to said crown tooth wheel, and provided with a 105 bearing, a plate arranged on the window frame, said plate provided with a series of apertures; a locking member, comprising an elongated cylindrical shaft and an angular latch portion secured to one end of said 110 shaft the shaft portion of said locking member adapted to pass through the bearing in said standard and engaged in one of the apertures in said plate, and thereby lock the lower sash from movement while the latch 115 portion is arranged to engage the crown tooth wheel and thus prevent the reel from rotating whereby the upper sash will be locked against downward movement.

The foregoing specification signed at 120 Asheville, N. C., this the 26th day of December, 1908.

WALLACE B. DAVIS.

In presence of—

F. M. WEAVER,
WM. O. BOYER.