April 20, 1926. 1,581,908

B. E. BARTHOLOMEW

WEIGHTLESS SASH CONSTRUCTION

Filed July 25, 1924

Fig. 1.

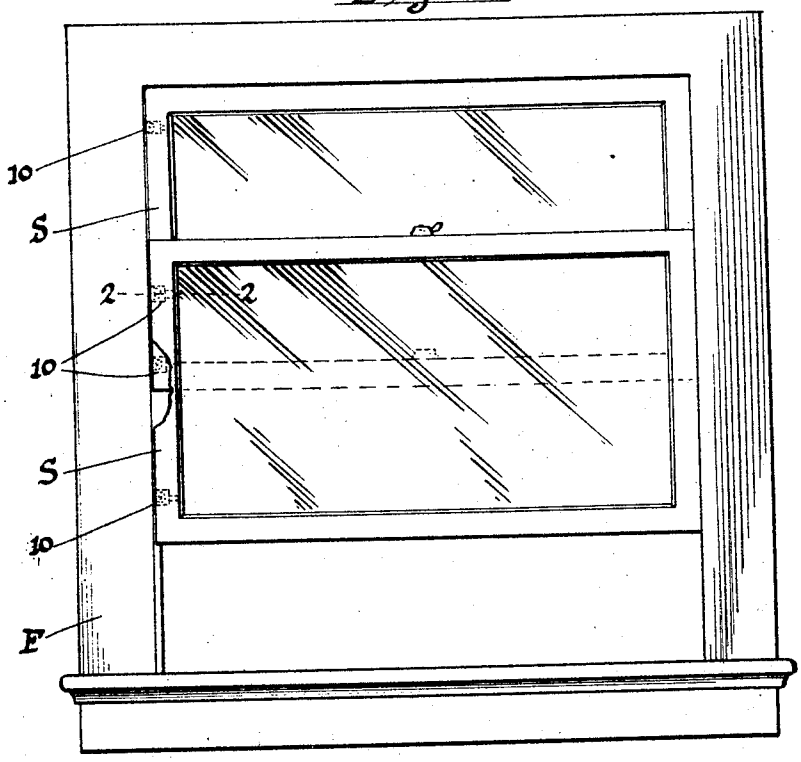


Fig. 3.

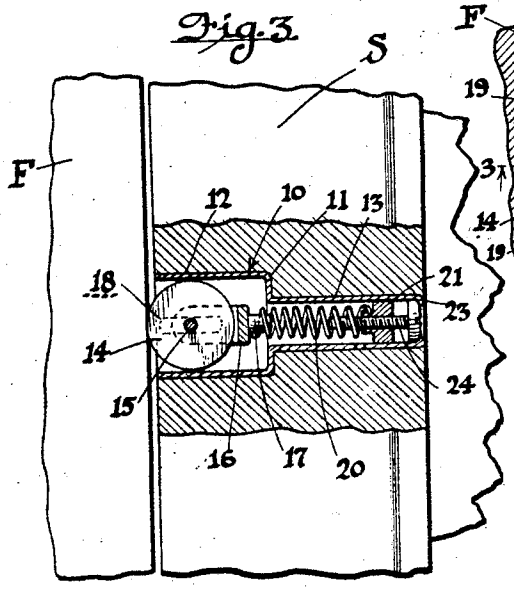


Fig. 2.

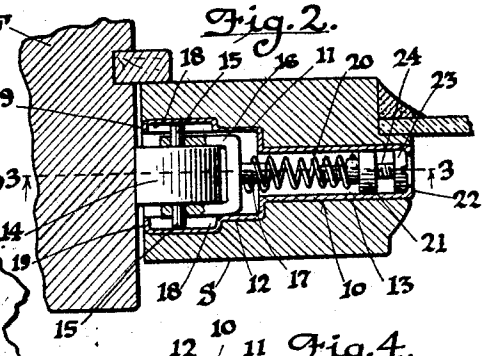
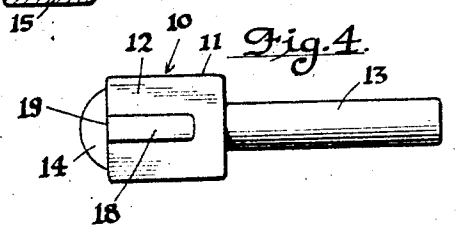


Fig. 4.



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UNITED STATES PATENT OFFICE.

BERT E. BARTHOLOMEW, OF PASADENA, CALIFORNIA.

WEIGHTLESS SASH CONSTRUCTION.

Application filed July 25, 1924. Serial No. 728,131.

To all whom it may concern:

Be it known that I, BERT E. BARTHOLOMEW, a citizen of the United States, residing at Pasadena, in the county of Los Angeles and State of California, have invented new and useful Improvements in Weightless Sash Constructions, of which the following is a specification.

This invention relates to window construction wherein sashes may be retained in elevated position without the use of sash cords, weights and similar counterbalancing devices.

An object of the invention is to provide a sash with a suitable roller adapted to engage and bear upon the window frame, whereby the sash will be urged against the opposite side of the window frame and frictionally held in position.

Another object of the invention is to provide a roller for a window sash adapted to engage the frame and provide means whereby the pressure exerted by the roller upon the window frame may be easily and conveniently varied.

Other objects will be made manifest in the following detailed description and distinctly pointed out in the appended claims, reference being had to the accomanying drawings for purposes of illustration, wherein:

Figure 1 is a front elevation of a window frame having mounted therein sashes in which my improvement is embodied,

Fig. 2 is a detail horizontal section taken substantially on the line 2—2 of Fig. 1,

Fig. 3 is an enlarged detail elevation, parts being broken away, showing in section, taken substantially on the line 3—3 of Fig. 2, my improvement mounted therein, and

Fig. 4 is a side elevation of the housing which I employ, the roller being mounted therein.

Referring to the accompanying drawings, in which similar reference characters designate similar parts, a window frame F is provided with a pair of movable sashes having frames S bearing my improved device, generally designated by the reference character 10. These devices are preferably mounted upon the same side of the sash frame S at points near the top and bottom thereof.

Each device consists of a suitable housing 11 having a squared body portion 12 integral with a tubular extension 13. Within the body portion 12 is provided a roller or wheel 14, preferably, having integral spindles 15 journaled in a fork 16 which has an integral post 17. The wheel or roller 14 is adapted to be rotated within the fork 16 and to bear upon the surface of the window frame F.

Struck out or pressed out from the body portion 12 are a pair of oppositely disposed grooves or channels 18, in which the ends of the spindles 15 are adapted to slide. The ends of the struck-out or pressed-out channels 18 adjacent the window frame F are turned over as at 19, so that the movement of the spindle 15 in this direction is limited at the side face of the sash frame S.

Secured to the post 17 and extending into the extension 13 is a spring 20 herein shown as being a coiled spring, which has its other end secured to a nut 21. The extension 13 has its end flush with the inner face of the sash frame S, and is provided with a turned-over lip 22, against which rests the head 23 of a suitable screw 24, which screw 24 is threaded into the nut 21. It is seen that the screw 24 may be turned by applying a suitable tool, such as a screw driver, through the opening in the end of the extension 13, thereby making the screw head 23 accessible from the exterior surface of the sash frame S. By rotating or twisting the screw 24, the nut 21 will be caused to pass in the extension 13 toward the sash frame S, thereby increasing the compression in the spring 20 and increasing the pressure with which the roller 14 bears against the window frame F.

The assembly of the construction is quite simple, which consists of simply boring one or more holes in the sash frame S, inserting the complete device, and mounting the sash within the window frame. The screw 24 is then turned until the roller 14 is caused to bear upon the window frame F with the desired pressure, which causes the complete frame to bear against the opposite side of the window frame F with an equal amount of pressure, increasing the friction at that point and enabling the sash to remain in equilibrium at any point within the window frame.

It is seen that I have provided a cheap, simple and durable device, which may be mounted in a sash frame and eliminate the use of sash weights.

It is to be understood that the drawings and the above detailed description are used for illustrative purposes only, and that va-

rious changes in the detail of construction may be made without departing from the spirit of my invention.

What is claimed is:

1. In a window sash frame, a housing, a roller having spindles journaled in a fork in said housing, said spindles being slidable in grooves in said housing, a spring in said housing having one end fixed to said fork, the other end of said spring being fixed to a nut, and a screw adapted to slide said nut in said housing, thereby varying compression in said spring.

2. In a window sash frame, a housing extending laterally through the frame, a fork disposed within said housing, a roller rotatable within said fork adapted to engage the window frame, a nut slidable within said housing, a spring secured to the nut and fork, a screw threaded into the nut, said screw having its head exposed at one end of the housing, and means for maintaining the screw within the housing.

3. In a window sash frame, a housing extending laterally through the frame, a fork disposed within said housing adjacent the window frame, a roller having spindles rotatable in said fork, there being grooves formed upon the housing in which the ends of the spindles are slidable, a nut slidable in the housing, a spring disposed between the nut and fork, and a screw threaded into the nut having its head exposed, the ends of the housing being bent over to maintain the screw therein.

In testimony whereof I have signed my name to this specification.

BERT E. BARTHOLOMEW.