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H. C. CONE

CASEMENT WINDOW OPERATING MEANS

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Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Inventor

Harry Cone

By

Attorney
This invention relates to means for adjusting window casements, transoms, etc., an object of the invention being to provide a simple efficient adjusting mechanism which may be concealed from view.

A further object is to provide a device of this character with adjustable features to provide for warping of the casement, referring to the accompanying drawings, which are made a part hereof and on which similar reference characters indicate similar parts.

Figure 1 is an interior view in elevation of a casement with my device attached thereto, Figure 2 a section on line 2—2 of Figure 1, Figure 3, an enlarged detail view of the operating mechanism, Figure 4, a section on line 4—4 of Figure 1, on an enlarged scale, and Figure 5, a section on 5—5 of Figure 4.

In the drawings numeral 10 indicates a window casement which is hinged at 11. Numeral 12 indicates a screen which is secured on the inside of the window frame in any convenient way, numeral 13 indicating a portion of the frame of the screen and 14 a side of the casement 10. Preferably positioned at one side of the window between the screen frame 13 and the casement frame 14 is the operating mechanism shown as a whole in detail in Figure 3. This consists of a shaft 15, the upper end of which is journaled in a bearing 16 which is secured to the upper side of the window frame by means of screws set in sockets 17. The lower end of the shaft 15 is journaled in a suitable bearing 18. A worm gear 19 is secured on the lower end of the shaft between collars 20 and 21.

A worm 22 is suitably mounted to mesh with the worm gear 19. The worm 22 preferably has a square or other angular socket 23 therethrough to receive the end of an operating crank 24, the crank being preferably removable from the socket 23. The worm and worm gear are preferably housed within a casing 25. A lower arm 26 has an angular hole therethrough to fit over an angular portion of the lower end of the shaft 15 and an upper arm 27 is secured by means of a set screw 28 near the upper end of the shaft 15. The arms 26 and 27 carry on their outer ends a set of roller trucks 29, or other mechanism for operatively connecting the arms to the window casement. The trucks 29 preferably consist of a set of rollers 30 mounted on shafts 31. An arm 32 is secured to the shafts and pivotally attached at 33 to the end of the arm 26 or 27. The rollers 30 are housed within a casing or track 34 which is secured to the side of the casement, one at the bottom and one at the top. As clearly shown at 35 in Figure 2 the arms 26 and 27 are bent outwardly. This permits the casement to be opened and yet allow the operating mechanism to be positioned back of the side 13 of the screen so that it may be concealed from view from the interior of the room. The screw 28 on the upper arm 27 permits this arm to be adjustably positioned so as to tightly close the casement in case it becomes slightly warped or twisted.

From the foregoing description it will be clearly seen that I have provided a mechanism for operating window casements which mechanism itself may be clearly concealed from view and yet in a convenient place to be easily and quickly operated.

It will be obvious to those skilled in the art that various changes may be made in my device without departing from the spirit of the invention and therefore I do not limit myself to what is shown in the drawings and described in the specification, but only as indicated by the appended claim.

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

In a window casement having a window hinged at one side and a screen fitted in the window casing, means for opening the casement comprising an upright shaft, the lower portion of which is angular in cross-section and the upper portion circular in cross-section, a gear mounted on the lower portion, a worm meshing with said gear, means for rotating said worm for operating said shaft, outwardly bent arms having collars on one end adapted to be mounted on the upper and lower portions of said shaft and the other...
ends slidably secured to said window, and a screw extending through said collar of the upper arm for adjustably securing said arm in operating position, substantially as set forth.

In witness whereof, I have hereunto set my hand and seal at Washington, District of Columbia, this third day of June, A. D. nineteen hundred and thirty.

HARRY C. CONE.