Nov. 6, 1928. 1,690,204

P. R. NYE

WINDOW

Filed June 8, 1927

Fig. 1.

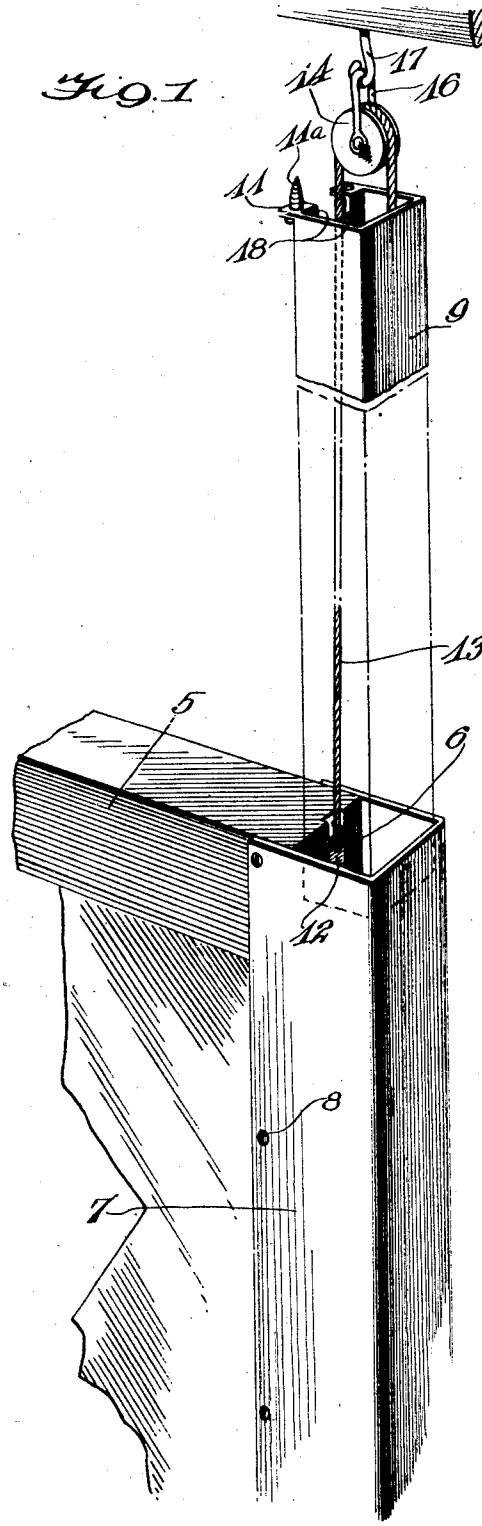


Fig. 2.

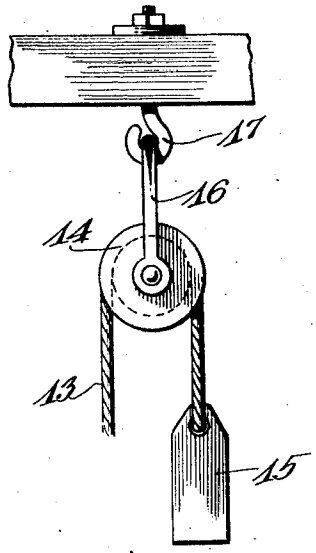
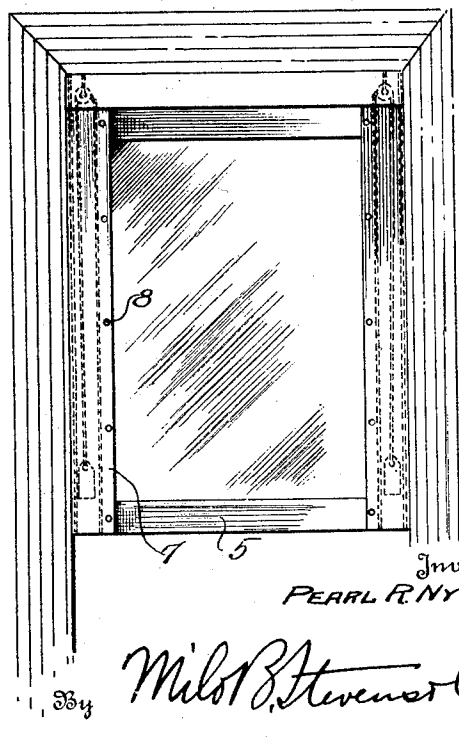


Fig. 3.



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UNITED STATES PATENT OFFICE.

PEARL R. NYE, OF CHICAGO, ILLINOIS.

WINDOW.

Application filed June 8, 1927. Serial No. 197,423.

This invention relates to windows of the conventional type in dwellings, office buildings and the like, and its main object is to provide a novel installation whereby the usual counterweight chambers in the window frame are eliminated.

A further object of the invention is to so construct the novel window that its counterweight apparatus will be readily accessible for inspection, repair or replacement.

A still further object of the invention is to encase the counterweight apparatus in a novel manner, so as to fully conceal the same and lend the window a neat appearance.

Another object of the novel window is to make access to its counterweight apparatus so handy that the average person will find it an easy matter to attend to a repair or replacement in the event of an emergency.

A final but nevertheless important object of the invention is to construct the novel window of few and simple parts, whereby the cost of its production and installation may compare favorably with figures applying to prevailing types of windows.

With the above objects in view and any others that may suggest themselves from the specification and claims to follow, a better understanding of the invention may be gained by reference to the accompanying drawing, in which:

Figure 1 is a perspective view of a fragment of the installation, partly cut away;

Fig. 2 is an elevation of the counterweight suspension; and

Fig. 3 is an elevation of one of the window sashes in fully elevated position.

In window frames of the prevailing type, the counterweight apparatus is housed in compartments made in the frame jambs, and when a weight jams or the sash cord breaks, it is necessary to remove the window stops and then the jamb-panels for access to the defective part. This work entails more or less difficulty and usually requires the services of a carpenter.

In designing the invention to relieve the above condition, I use a window frame of standard construction, except that it need not have the internal counterweight compartments in its jambs. Instead, I incorporate the counterweight apparatus in the region of the stiles of the window sashes. Thus, in the illustration of the sash 5 the stile 6 is only solid in part, being supplemented by a box casing 7 of metal which is adapted to slidably fit the sash groove in the frame in the manner of the ordinary sash. In alinement with the sash casing 7—which is secured to the sash by screws 8 or other suitable means—is a tubular shaft 9, which depends from the top rails of the window frame 10 to a point somewhat below the middle of the window. The shaft 9 is similar in form to the casing 7—that is, rectangular—and is dimensioned to smoothly telescope into the same. Thus, in the case of the inner sash (as closed) (Fig. 1) the casing and the shaft will be relatively extended as shown, while in the case of the outer sash (as closed) a similar but fully telescoped combination will be obtained.

There are thus two shafts 9 for each sash, making four in all, suspended from the top rail of the window frame; and the preferred method of suspension is by forming the upper edge of the shaft with lugs 11, which are secured to the top rail by screws 11^a.

As to the counterweight tackle, the simple forms of the attaching plate 12, cord 13, pulley 14 and counterweight 15 are used. The pulley is, however, made with a hanger 16 for suspension from a hook 17 secured in the top rail of the frame. In order that the attaching plate 12 and the cord 13 may clear the shaft, the inner wall of the latter is parted—as shown at 18—throughout its entire length.

It will now be seen that an installation is had which completely conceals the counterweight apparatus at all times to those who approach the window from within or without. Yet, when anything is wrong with the same, the corresponding shaft 9 may be quickly lowered by removing the two top screws 11^a, exposing the defective part or parts for handy removal, repair or replacement. The improvement requires no radical departure in the design of windows and frames therefor; and what expense may be added for the sashes is easily compensated by the simplicity of the window frame for the present purpose.

While the invention has been illustrated and described in preferred form, I am aware that it is capable of many minor changes and refinements, and I therefore wish to claim all such changes and refinements as coming within the scope and spirit of the appended claims.

I claim:—

1. A window installation comprising a frame, a sash movable therein, casings incorporated in the side edges of the sash, and shafts in the frame and telescoped by the casings during the movement of the sash, said shafts having longitudinal slots extending their entire length and toward the sash, counterweights movable within said telescoping parts, pulleys at the top of said frame, cords trained over said pulleys and connecting the sash and weight.

2. A window installation comprising a frame, a sash movable therein, casings incorporated in the side edges of the sash, and shafts secured in the top of the frame and depending in telescoping alinement with said casings, said shafts being telescoped by the casings during the movement of the sash, counterweights connected by cords with said sash and trained over pulleys arranged at the top of the frame, said shafts having an open slot longitudinally of the side thereof adjacent the sash, said weights being movable within said telescoping parts.

3. A window installation comprising a frame, a sash movable therein, tubular casings secured to the sides of the sash, tubular shafts secured to the top of the frame and telescopically receivable in said casings, pulleys secured to the top of the frame, counterweights connected with the sash by cords trained over said pulleys, said pulleys, cords and counterweights being continuously housed within said telescoping parts.

4. A window installation comprising a frame, a sash movable therein, tubular casings secured to the sides of the sash, tubular shafts secured to the top of the frame and telescopically receivable in said casings, pulleys secured to the top of the frame, counterweights connected with the sash by cords trained over said pulleys, said pulleys, cords and counterweights being continuously housed within said telescoping parts, and slots in said shaft accommodating said rope in the sliding of said sash.

In testimony whereof I affix my signature.

PEARL R. NYE.