Jan. 22, 1952 G. T. DUFFIN 2,583,361

BLIND

Filed Nov. 4, 1949

Fig-3-

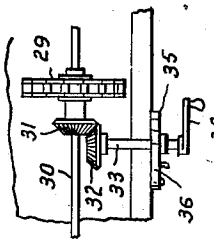


Fig-6-

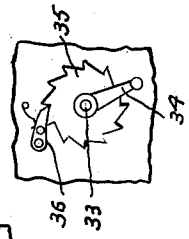


Fig-4-

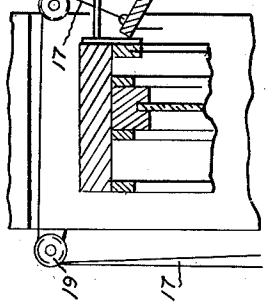


Fig-5-

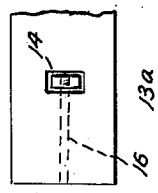
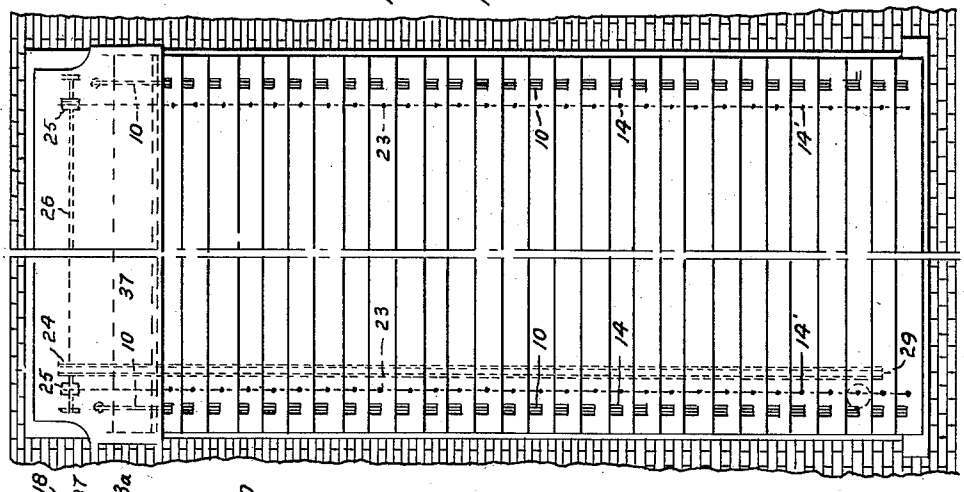


Fig-2-



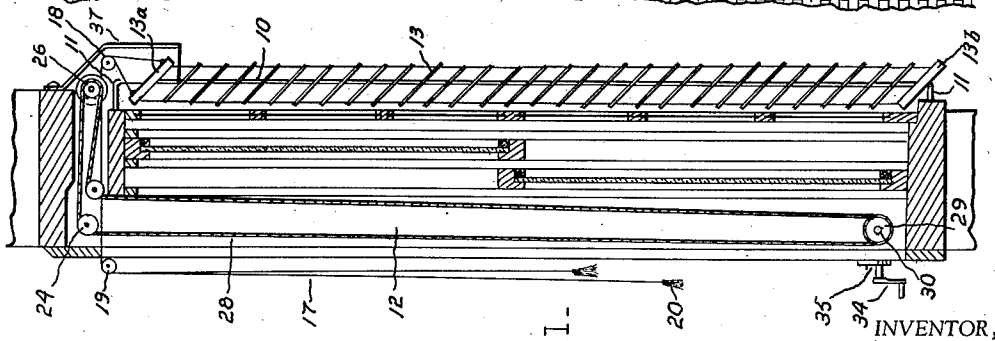


Fig-1-

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Patented Jan. 22, 1952

2,583,361

UNITED STATES PATENT OFFICE

2,583,361

BLIND

Greekie T. Duffin, Washington, D. C.

Application November 4, 1949, Serial No. 125,519

2 Claims. (Cl. 160—172)

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The object of the invention is to provide a blind for exterior application on a building where it may function as a storm shutter in addition to serving as a means of controlling the admission of light through the equipped window; to provide, in such a blind, an interiorly positioned operating means for adjusting the positions of the slats; to provide a room-contained means for elevating and lowering the slats; and generally to provide a blind of the kind indicated which is of simple form, composed of comparatively few parts and susceptible of cheap manufacture and sale.

With this object in view, the invention consists in a construction and combination of parts of which a preferred embodiment is illustrated in the accompanying drawings in which:

Figure 1 is a side elevational view of the invention, the window frame being shown in section;

Figure 2 is a front elevational view of the structure of Figure 1;

Figure 3 is a plan view of the elevating crank and its associated parts;

Figure 4 is a detail sectional view of the upper end of the structure showing the rocker slat operating means;

Figure 5 is a detail plan view of one end of the rocker slat showing its mounting means; and

Figure 6 is an elevational view showing the crank shaft arresting pawl.

Designed for exterior application on the building on which it is to be used, the invention comprises the support rails 10 (preferably metal and cross-sectionally square) with inturned terminal arms 11 secured to the sill and top rail of the window frame 12. The slats 13 are assembled on the rails before attachment of the latter, being formed with oblong holes 14 of sufficient width to allow them to slide up and down the rails and being of sufficient length to afford them rocking movement on their longitudinal axes. This, so that the slats may be elevated to the tops of the rails in a closely assembled pile to expose the equipped window, or lowered into shielding relation to the window in uniformly spaced relation to be rocked to attain the degree of relative overlap necessary for the desired exclusion or admission of exterior light.

The uniform spacing of the slats when lowered is secured by means of chains 15 connected with the slats at their forward and rear edges. The topmost slat 13*a* and bottommost slat 13*b* are thicker than their mates, the former being the rocker slat to which rocking movement for slat adjustment is imparted, and the latter being the

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weight slat which, when the blind is lowered, tensions the chains so as to effect uniform spacing of the full complement of slats.

The rocker slat nas no up-and-down movement on the rails 10 but is limited to rocking movement which is made possible by the slat being supported on stub shafts 16 inserted through the ends of the slat and spanning the holes 14 wherein they are journaled in bearing holes in the support rails. At one end and at the forward and rear edges, the rocker slat 13*a* has connected to it the pull-cords 17 which are trained over direction pulleys 18 and direction pulleys 19 and are terminally equipped with finger knobs 20. A pull applied to either cord will rock the slat 13*a* and with it the other slats, so that the desired slat adjustment may be effected by the selection of the proper pull-cord.

The means for elevating and lowering the blind consists preferably of metal ribbons 23 terminally connected to the bottom slat 13*b* and extending loosely through the holes 14 in the other slats and around the reels 25 mounted on a common shaft 26 rotatably mounted in a clearance space at the top of the window frame. The shaft 26 is terminally provided with a sprocket 27 over which is trained a chain 28 traversing direction sprockets 24 and being also trained over the sprocket 29 rotating on a shaft 30 in common with a mitre gear 31 whose mate 32 is carried by a shaft 33 equipped with a crank 34 by which it may be manually operated. The shaft 33 also carries a ratchet disk 35 and its teeth are engaged by the pawl 36 which allows forward movement of the shaft 33 but precludes retrograde movement thereof.

In the elevated position of the blind, the collapsed pile of slats are housed within the canopy 37 secured to the window frame at the top and spanning the latter transversely. This shield is as much for ornamental as utilitarian purposes, since it shields the collapsed slats from view and protects from the elements such openings as are necessary to carry the operating mechanism from the exterior to the interior of the equipped building.

The invention having been described, what is claimed as new and useful is:

1. A blind for exterior application to a building in shielding relation to a window therein, comprising spaced upright support rails spanning the window, a plurality of slats having clearance holes by which they are assembled on the rails, collapsible spacing means connecting adjacent slats, tapes passing through all the slats and

connected to the lowermost, means for reeling the tapes to elevate the slats in a bundle to the top of the rails, pull cords, terminally connected, one to the forward edge and one to the rear edge of uppermost slat, and direction pulleys exterior to and interior to the window and having such pull cords trained over them.

2. A blind for application to the exterior of a building in shielding relation to a window therein comprising spaced upright support rails spanning the window, a plurality of slats having clearance holes therein by which they are assembled on the rails, means for elevating and lowering the slats on the rails, the uppermost slat having a rocking mounting on said rails, pull cords connected, one to the forward and one to the rear edge of the uppermost slat, direction pulleys over which the pull cords are trained to be accessible within the building, pull tapes connected with the

lowermost of said slats and having a running engagement with the remainder thereof, means for reeling and unreeling the tapes, to elevate and lower the slats, and a canopy secured to the window frame at the top and spanning the latter transversely and shielding the uppermost of said slats and the operating means therefor.

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The following references are of record in the file of this patent:

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