No. 763,546. PATENTED JUNE 28, 1904.

J. DUFFY.

SASH PULLEY.

APPLICATION FILED MAY 28, 1902.

NO MODEL.

Fig. 1.

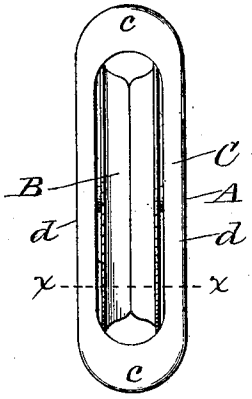



Fig. 2.

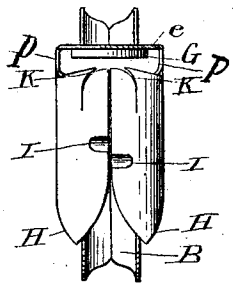



Fig. 3.

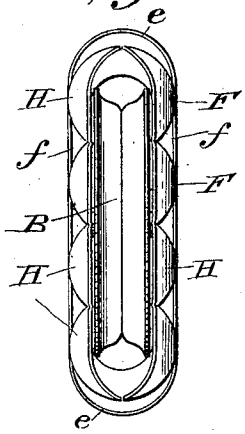



Fig. 4.

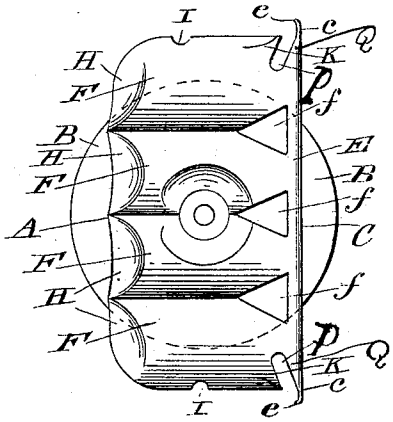



Fig. 5.

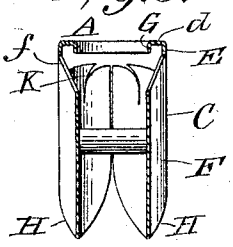
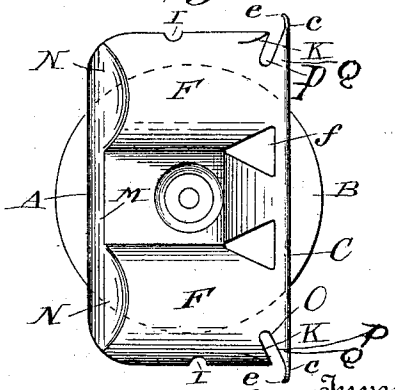



Fig. 6.




Witnesses

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No. 763,546. Patented June 28, 1904.

# UNITED STATES PATENT OFFICE.

JOHN DUFFY, OF GRAND RAPIDS, MICHIGAN.

## SASH-PULLEY.

SPECIFICATION forming part of Letters Patent No. 763,546, dated June 28, 1904.

Application filed May 28, 1902. Serial No. 109,336. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN DUFFY, a citizen of the United States, and a resident of Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Sash-Pulleys, of which the following is a specification.

My invention relates to sash-pulleys, and has for its object to provide a casing that will have a face-plate of strong construction and so formed as to prevent curling of the edges when driven into the mortise and when in place to offer no obstruction to the passage of the window-sash and having corrugated sides provided with means to permit them to enter the mortise readily and also to prevent the rope jumping from the pulley.

To these ends my invention consists of the means hereinafter described and claimed.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a front view of a casing with a pulley therein; Fig. 2 an end view, Fig. 3 a rear view, Fig. 4 a side view, Fig. 5 a section on line *x x* of Fig. 1, and Fig. 6 a side view, of modified form of casing.

Referring to the drawings, A is the casing, and B the pulley. The casing A has a face-plate C, which is adapted to fit in the mortise substantially flush with the surface of the window-frame when driven into place. The plate C comprises end portions *c* and side strips *d*. The ends are rounded over and turned down to form the rounded edges *e*. It is essential that the ends be rounded over and turned at but a slight angle, so that it will not be necessary to cut away the wood to let the plate in flush with the frame. The bending must be sufficient to prevent the ends from curling up when driven into the wood. This rounding over also adds strength to the face-plate. The side strips *d* are also rounded over and turned down and extend back in a straight line for some distance to form the straight portions E, which are formed the full length of the sides. The face-plate is separated from the body of the casing by a cut or opening P, that extends back toward the inner end of the casing, leaving the front curved edge of the casing free and leaving tapered shoulder portion Q of the straight side part extending from the end of the cut forward to where the curved front edge joins the side edge of the plate, so as to support the face-plate. The sides of the casing are provided with corrugations F, running from front to rear. The sides are slotted or cut away at the inner edges of the straight portions, as at *f*, so that the edge of the straight portion will enter the wood easily and when driven will cover up the portions of the casing behind the face-plate. These cut-away portions also do away with the bending or doubling at the corners of the corrugations that would otherwise be produced and would prevent the close fitting of the casing. The inside edge of the face-plate is bent in to form the continuous inward flange G. This flange, with the side straight portions and the rounded-over ends, forms a channel that gives the face-plate great strength and serves to prevent bending of the casing and binding of the same against the pulley. The corrugations leave semicircular openings between the wheel and the sides. To obviate the disadvantage of this and close in the wheel, so as to prevent the rope jumping therefrom, the inner ends of the corrugations are bent to form bevels H. The bending in or beveling is also of particular advantage in the casing provided with corrugations, as it permits the ends to be inserted into the mortise easily. On the top and bottom portions of the sides of the casing are the transverse corrugations I, one on each side of the casing and out of register, so that the sides cannot crowd past each other and force the beveled ends in against the wheel. Split holding-tongues K are cut in each end of the casing, having their inner edges coincident with the edges of the sides.

In Fig. 5 is shown a form of casing in which merely two corrugations on each side are provided. In this construction the central straight flat panel or section is provided with a bent-in portion M shorter than the similar portions N of the corrugations because of the projections of the swells or corrugations beyond the flat central portion.

Having thus described my invention, what I claim is—

1. In a sash-pulley, a casing having a face-plate provided with rounded-over ends, bent at a slight angle from the surface of the face-plate, substantially as described.

2. In a sash-pulley, a casing having a face-plate provided with straight portions on its sides extending back from the face-plate and having its edges rounded over and bent at a slight angle from the face-plate, substantially as described.

3. In a sash-pulley, a casing having straight portions extending back from the face-plate on the sides, the end edges of said face-plate rounded over and bent at a slight angle and a flange at the inner edge of the face-plate projecting inward and forming with said straight portions and bent edges a channel, substantially as described.

4. In a sash-pulley, a casing provided with corrugations on each side, a flat section between them, said corrugated portions bent in at their rear ends and intermediate flat portion also bent in at the end but for a shorter distance from the end than the corrugated portions, substantially as described.

5. In a casing for a sash-pulley, a face-plate cut away at its ends from the body of the casing, said cut-away portion extending from the edge of the face-plate downwardly and rearwardly, thereby leaving a tapering shoulder portion Q, extending from the end of said cut forward to where its curved edge joins the side edge of the plate, and forming a support to the face-plate, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two witnesses.

JOHN DUFFY.

Witnesses:
ALBERT G. DICKINSON,
FRANK S. COLEMAN.