O. S. GARRETSON.
Sash-Pulley Frame.

No. 205,184. Patented June 25, 1878.

Fig. 1.

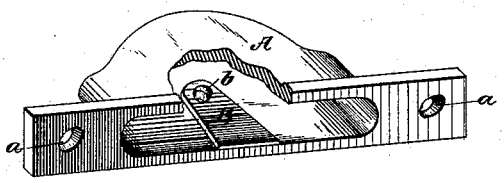


Fig. 2.

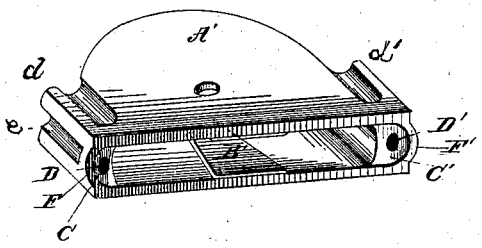
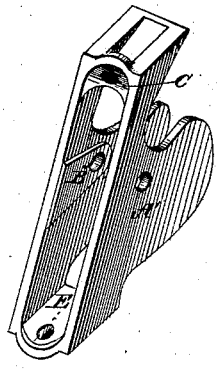


Fig. 3.



Attest.

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OLIVER S. GARRETSON, OF BUFFALO, NEW YORK.

IMPROVEMENT IN SASH-PULLEY FRAMES.

Specification forming part of Letters Patent No. **205,184**, dated June 25, 1878; application filed March 26, 1877.

To all whom it may concern:

Be it known that I, OLIVER S. GARRETSON, of the city of Buffalo, county of Erie, and State of New York, have invented certain new and useful Improvements in Frame-Pulleys, the same being fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to produce a frame-pulley that can be mortised into window-casings, &c., with less labor than is required for those now commonly in use, and which are constructed with interior re-enforces and projecting lugs.

My method of construction also reduces the cost of manufacturing these articles by diminishing the amount of metal required in the casting.

These improvements apply to that class of frame-pulleys in which the case or shell is cast in a single piece, the invention consisting, mainly, in novel details of construction, as hereinafter more fully described and definitely claimed.

Figure 1 represents the case of a frame-pulley cast in a single piece, with projecting lugs *a a*, part of the side A being removed to show interior re-enforce B. Fig. 2 is a frame pulley-case of same interior dimensions as in Fig. 1, but without the lugs *a a*, the places of these being supplied by recesses *c c'* formed at each end within the case or shell, and provided with holes D D′ for the reception of nails or screws. Fig. 3 shows a frame pulley-case having but one recess, the place of the other being supplied by a hole, E, cast in the flat or rounded surface of the opposite end.

By having the re-enforces—the intention of which is to provide additional bearing around the holes *b*, through which the axial pin passes, and in which it rests—on the inside of the pulley, I am enabled to form the external surfaces of the sides A A′ smooth, even, and parallel, or nearly so, whereby the labor of cutting recesses in the mortise for the reception of the ordinary external re-enforcements is avoided. The substitution of the recess *c* and hole E for the lugs *a* also effects a similar saving of labor in addition to reducing the cost and weight of the pulley.

The method of inserting the pulleys, Figs. 2 and 3, is to cut mortises the length and width of the face of the pulley, not including the slight projections F F′, which, by embedding themselves in the uncut portion of the wood, act as stops to prevent the pulley from being driven below the surface of the casing. Nails or screws are driven obliquely through the holes D and E into the casing, &c.

Beyond and in rear of these holes D and D′ I provide wings *d d'*, formed at right angles with the face of the pulley, and having between them recesses, the object of which is to allow the holes D D′ to be molded at the same time and operation as when the pulley-case is so formed, and without the use of cores. The object of the wings *d d'* is to fill the mortise and support the pulley when the strain of the sash is brought upon it. I make these wings at right angles to the face of the pulley in order to secure a square seat upon the ends of the mortise. This I consider essential to the firm retention of the pulley in its place, there being a liability, if the ends of the mortise form any other angle with its face, of the jar and pressure on the pulley causing displacement.

In casting these pulley-cases, I aim to form all the holes, parts, and recesses at a single operation of molding, excepting those holes in which the axial pin rests, without the use of cores or necessity of drilling. These pulleys may be made with square ends, as shown, or rounded to fit a rounded mortise. The cord may be taken at both ends, as in Figs. 1 and 2, or at one end only, as in Fig. 3.

What I claim as my invention is—

1. In a frame-pulley, the case or shell A, when cast in a single piece, with interior re-enforces B B′, substantially as described and shown.

2. The curved recesses *c c'*, holes D D′, wings *d d'*, and rear recesses *e e*, as shown and described, and for the purpose specified.

OLIVER S. GARRETSON.

Witnesses:
P. P. JOSEF,
P. J. DOUW.