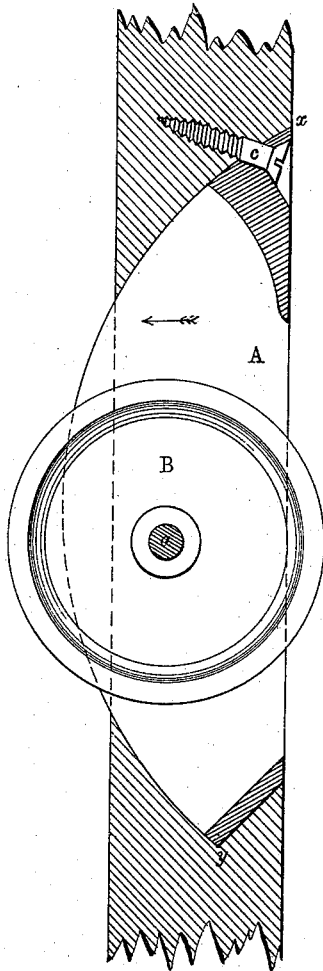


E. H. N. CLARKSON & W. H. H. KESLER.
Sash Pulley.

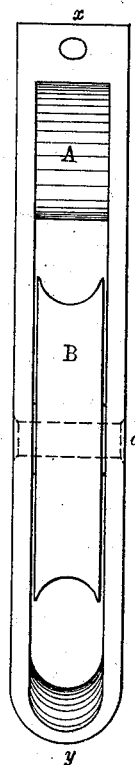
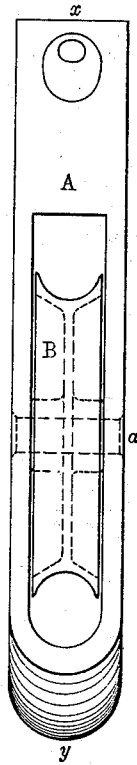
No. 201,749.

Patented March 26, 1878.

—FIG. I—



—FIG. II— —FIG. III—



—WITNESSES—

Wm. H. Lawson
Frank M. Burnham

—INVENTORS—

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by G. H. Howard
attys.

UNITED STATES PATENT OFFICE.

EDWARD H. N. CLARKSON AND WILLIAM H. H. KESLER, OF BALTIMORE, MD.

IMPROVEMENT IN SASH-PULLEYS.

Specification forming part of Letters Patent No. **201,749**, dated March 26, 1878; application filed August 23, 1877.

To all whom it may concern:

Be it known that we, EDWARD H. N. CLARKSON and WILLIAM H. H. KESLER, both of the city of Baltimore and State of Maryland, have invented an Improved Sash-Pulley, of which the following is a specification; and we do hereby declare that in the same is contained a full, clear, and exact description of our said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

Our invention has reference to a peculiar construction of the holder supporting the revolving sheave.

The object of this invention is the construction of a sash-pulley that will be self-sustaining—that is to say, a pulley requiring no special fastening devices to retain it in position within the groove or slot prepared for its reception, the sustaining-point of the pulley being so placed with reference to the center of the sheave as to cause the pulley to press more closely within the slot when influenced by the weighted cord suspending the sash, all as hereinafter more fully described and claimed.

In the drawing forming a part hereof, Figure 1 is a sectional view of the improved sash-pulley embedded in the sash-frame, a portion only of which frame is shown. Figs. 2 and 3 are, respectively, an outer and an inner edge view of the pulley.

Similar letters of reference indicate similar parts of the device in all the views.

A is the sheave-holder, and B the sheave, adapted to revolve upon a pin, *a*, supported therein. The inner edge of the holder A is practically of a circular form, and the holder terminates at its upper end in a point, *x*, formed by the intersection of the circular edge of the holder and the flat face of the same. The lower end of the holder is also pointed; but the point or incline *y* is formed by cutting off the holder at an angle, as shown. This angular lower end of the holder A is circular, in consequence of the entire groove being cut

by means of a revolving bit, as hereinafter described. To cut this groove in the sash-frame a rapidly-revolving bit is used, which is pivoted in such manner as to admit of its cutting end having a limited circular movement while revolving.

The operation may, however, be reversed by the employment of a bit revolving in one position only, and moving the sash-frame in a circular path.

From the construction of the holder, as described, it will be seen that the pulley is practically resting upon the lower point *y*, and that by placing the pin *a* farther from the face of the holder than the said point *y*, the tendency of the pulley, when the sheave receives the strain of the weighted cord, is to move in the direction of the arrow. In consequence of this arrangement of the sheave and holder no special fastening device is absolutely necessary, but to give permanency to the pulley within the sash-frame when the strain of the cord is removed; and during transportation of frames a single screw or nail, *c*, is inserted through the upper end of the holder, as shown.

Having thus described our invention, what we claim as new, and wish to secure by Letters Patent of the United States, is—

In a sash-cord guide, the sheave-holder A void of flanges, having its inner edge circular, and terminating in the point *x* and incline *y*, in combination with the sheave B, the pin *a* of which is located farther from the face of the holder than is the lower point or incline *y*, substantially as and for the purposes hereinbefore set forth.

In testimony whereof we have hereunto subscribed our names this 2d day of July, in the year of our Lord 1877.

EDWARD H. N. CLARKSON.
WILLIAM H. H. KESLER.

Witnesses:

WM. T. HOWARD,
JNO. T. MADDOX.