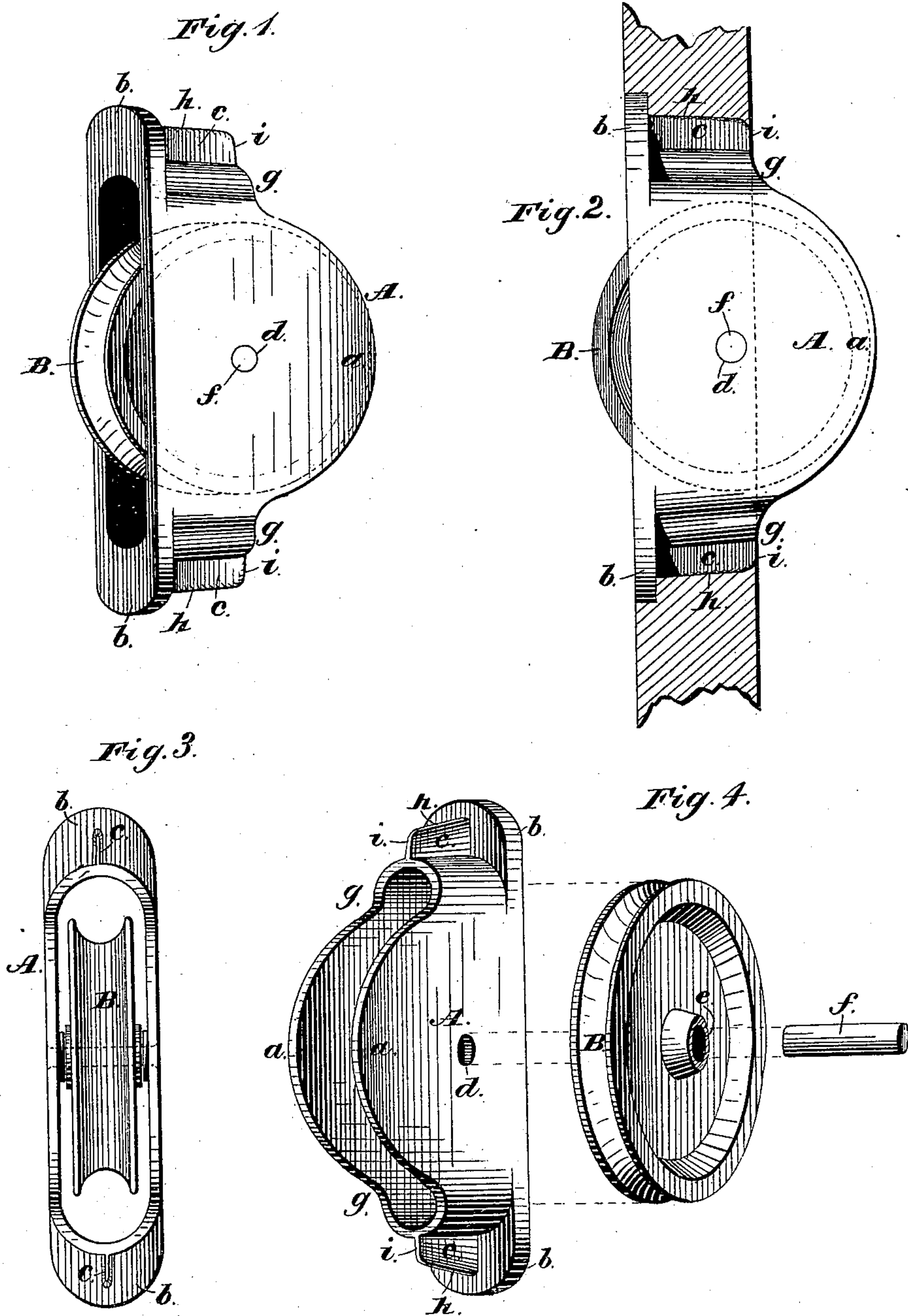


(Model.)

J. K. CLARK.  
SASH CORD PULLEY.

No. 253,005.

Patented Jan. 31, 1882.



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOHN K. CLARK, OF BUFFALO, NEW YORK.

## SASH-CORD PULLEY.

SPECIFICATION forming part of Letters Patent No. 253,005, dated January 31, 1882.

Application filed December 6, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, JOHN K. CLARK, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Sash-Cord Guides, of which the following is a specification.

This invention relates to that class of sash-cord guides in which the casing for the pulley or sheave is provided at each end with a projection or spur adapted to pierce or force itself into the top and bottom walls of the mortise when the casing is driven into position.

Heretofore the casings of this class of sash-cord guides have been bisected or composed of two vertical sections, each portion having at the top and bottom a projection or spur, so that when the two sections are united together the said top and bottom projections or spurs are adjacent to each other, respectively, and can penetrate the wood when the casing is driven or forced into the mortise. This construction of sash-cord guides possesses one desirable feature—namely, the end projections or spurs adapted to enter the wood as the casing is driven horizontally into the mortise, thereby enabling the usual fastening-screws to be dispensed with; but it is open to such objections as have rendered its general manufacture and sale impracticable, because the casing, being cast in two parts or sections, with recesses to receive the journal cast on the pulley or sheave, the parts must be shipped or delivered to the trade in separated pieces or sections, which is very objectionable and in fact has rendered the general introduction of this form of sash-cord guide impossible, because the construction increases the labor of the carpenter or manufacturer of the window-frames, and, further, materially increases the cost of production. It has been attempted to avoid the shipping or delivery of this form of devices to the trade in sections by riveting the two sections of the casing together when manufactured; but this so greatly increases their cost as to render such impracticable.

The object of my invention is to avoid the objections above stated, and to provide a comparatively cheap, but strong, durable, and efficient sash-cord guide which can be delivered to the consumer complete and adapted to be placed in position without further manipula-

tion or labor, and without the necessity of employing screws to secure them in place.

To these ends my invention consists in a sash-cord guide composed of a casing cast in a single piece, with end projections or ears and rearwardly-extending webs or flanges joined to and supporting said projections or ears, in combination with an axle or journal-pin extending through and supporting a pulley or sheave arranged to revolve within said casing.

In the accompanying drawings, Figure 1 is a perspective view of my improved sash cord guide; Fig. 2, a side elevation of the same in position in a window-frame; Fig. 3, an edge view from the rear of the casing; and Fig. 4, detached perspective views of the casing, the pulley or sheave, and the axle or journal-pin.

In the drawings, the letter A indicates the casing of the sash-cord guide, which is cast in one piece, with rounded ends *a a*, projecting ears *b b*, and webs or flanges *c c*, which extend longitudinally in a rearward direction from the rear side of the ears *b b*, and attached thereto in the process of molding or casting. The face of the casing is only the width thereof, being formed without the usual rims or flanges at the sides. The casing is provided with apertures *d* in its side, through which and a central perforation, *e*, in the pulley or sheave B, passes the axle or journal-pin *f*, the ends of the latter being upset or riveted from the exterior of the case to fix it in position, so that the pulley revolves thereon. The webs or flanges *c* extend to the rear edge, *g*, of the casing, and are tapered rearwardly, and are beveled or sharpened at their outer longitudinal edges, as at *h*, while their rear corners are rounded and beveled or sharpened, as at *i*, all for the purpose of permitting said webs or flanges to readily pierce or penetrate the solid wood at the top and bottom of the mortise when the casing is driven or forced horizontally into the same, which construction of webs or flanges is of considerable importance, in that it greatly increases the facility and convenience with which the casings can be applied to their proper position. It will be observed, from the contour of the webs or flanges and end projections or ears, that the casing cast in one piece therewith can be readily withdrawn from the sand after the molding or casting process is completed. The



ends of the casing are substantially or identically the counterpart of each other, and therefore the same is reversible and can be quickly applied in position, no matter which end is at the top, and, as will be obvious, this is of importance in saving time and in the convenience with which the casings can be accurately driven or forced into position.

The casing having been cast in one piece with the imperforate end projections or ears, *b b*, rounded ends *a*, and square webs or flanges *c c*, abutting against and forming a part of the said ears or projections, as hereinbefore described, the pulley or sheave *B* is placed within the casing, and the axle or journal-pin *f* passed through the apertures *d* and through the pulley or sheave, after which its exterior ends are upset or riveted against the side walls of the casing, after which the sash-cord guide is ready for the trade, and is capable of being applied to window-frames without further manipulation and without the necessity of employing any fastening-screws whatever.

To apply the improved sash-cord guide the mortise in the window-frame is formed in any suitable manner the exact length and width of the casing proper, and at each end thereof a seat is formed of the shape and depth of the end projections or ears, *b b*, the depth of such seat being, for example, one-eighth of an inch if the projections or ears be of that thickness. The casing is then inserted in the mortise, and driven or forced horizontally into the same by the employment of a hammer or other instrument, whereby the end webs or flanges, through their beveled edges, are caused to pierce or penetrate the solid wood at the top and bottom of the mortise until the projections or ears are tightly seated in their respective

seats and the face of the casing flush with the plane of the window-frame. The casing will, through the instrumentality of the webs or flanges, be firmly and substantially confined in position without the aid of other fastening devices, such as screws.

The webs or flanges of the casing being attached to or forming part of the end projections or ears, as hereinbefore set forth, subserve another function, in that they strengthen, support, and sustain the said projections or ears, and thereby avoid the liability of the same or the casing being broken when struck forcibly with a hammer to drive or force the casing into position.

I am aware that the casing of a sash-cord guide has been cast in one piece; but as heretofore constructed it has been necessary to employ a screw or screws to secure it in position, and I do not therefore wish to be understood as broadly claiming a casing for a pulley or sheave cast in one piece; but

What I do claim as my invention is—

A sash-cord guide composed of a casing cast in a single piece, with end projections or ears, and rearwardly-extending webs or flanges supporting said projections or ears, in combination with an axle or journal-pin supported by the side walls of the casing, and a pulley or sheave arranged on said axle or journal-pin, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN K. CLARK.

Witnesses:

JOHN R. BENTLEY,  
E. M. MIX.