

(No Model.)

F. V. PHILLIPS.

SASH CORD GUIDE.

No. 347,507.

Patented Aug. 17, 1886.

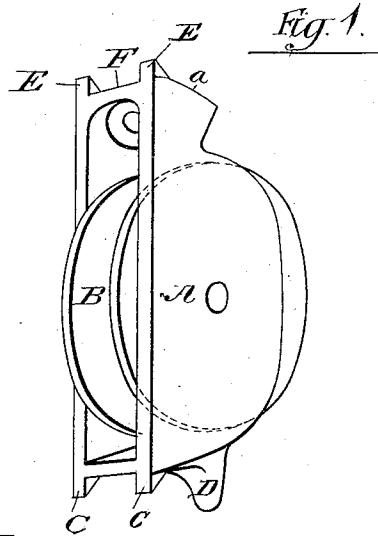


Fig. 2.

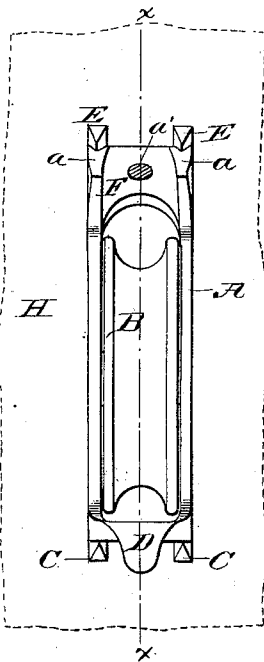
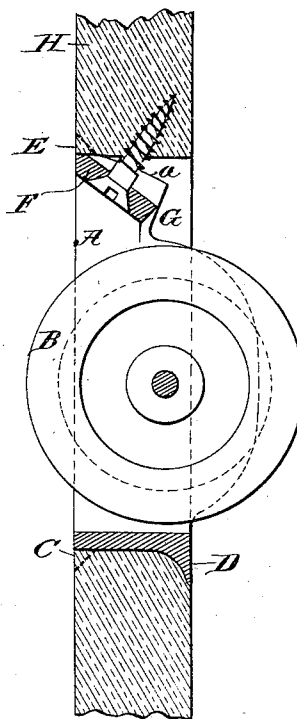


Fig. 3.



Witnesses:-

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UNITED STATES PATENT OFFICE.

FRANCIS V. PHILLIPS, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO CHARLES H. SMITH AND JOHN HEWITT, OF SAME PLACE.

SASH-CORD GUIDE.

SPECIFICATION forming part of Letters Patent No. 347,507, dated August 17, 1886.

Application filed February 13, 1886. Serial No. 191,812. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS V. PHILLIPS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Sash-Cord Pulleys; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon,
10 which form a part of this specification.

This invention has for its object to provide a construction in sash-cord pulleys whereby such pulleys may be expeditiously and securely inserted in mortises of window-frames. As
15 here shown, it is adapted to be inserted and secured in mortises which are straight cut or have parallel sides without gains for a flange or face-plate on the shell, since the shell, as shown, is, strictly speaking, destitute of such
20 flange or face-plate.

The invention consists in the matters hereinafter set forth, and pointed out in the appended claims.

In the accompanying drawings, illustrating
25 my invention, Figure 1 is a perspective view of a pulley-shell for window-frames, constructed in accordance with my invention. Fig. 2 is a rear view of the shell. Fig. 3 is a central longitudinal section of the shell and frame in
30 the line *xx* of Fig. 2.

A is an oblong shell cast in a single piece and containing the pulley B. The shell is provided with one or more shallow spurs or
35 projections, C, the outer surface of which is flush with the outer edge or face of the shell, and the inner or under side of which is desirably beveled off, as seen in Fig. 2, to readily enter the wood of the frame, that the spurs
40 may be drawn in flush with the surface of the latter in the application of the shell to the frame, as will be further explained.

D is a stud or spur cast on the end of the shell, at the inner edge of the shell, or, rather, in position to engage with the inner surface of
45 the frame H. Thus window-frames as now manufactured are commonly seven-eighths of an inch thick, and for such frames the stud D should be placed with its point that distance, or a little more than that distance, inward from
50 the front or outer surface of the shell. The outer surface of this spur D, or that nearest the

outer face of the shell, is desirably inclined away from the said outer face of the shell toward its point, as clearly indicated at *d* in
Figs. 1 and 3.

In placing the shell in the mortise G the end
55 of the shell having the spur D is placed against one end of the mortise with the under surface of the spur or spurs C resting on the surface of the frame, and the opposite end of the shell is
60 then forced inwardly until the face of the shell is flush with the frame. In this forcing-in operation the spur D bears on the back surface of the frame at the end of the mortise and
65 draws the spurs C into the wood on the face of the frame. The proper area of the surface *d* being opposed by spurs C, proportioned properly, and substantially as shown in the drawings, insures that the end of the shell having
70 said spur D, will be drawn in flush, or substantially flush, with the frame when the opposite end of the shell shall have been pushed into its place. I prefer to provide two spurs, C—
75 say one-eighth inch wide—at the angles of the shell, and a single spur, D, about one-fourth inch wide, central to the end of the shell, as
80 shown most plainly in Fig. 2, both to facilitate molding and as giving practically proper relative areas to bring this end of the shell flush with the frame by the movement described.

At its opposite end the shell A is provided
85 with an inclined surface or surfaces at *a*, to facilitate its entrance into the mortise and to force the end having the spur D back against the end of the mortise. I also prefer to employ
90 one or more spurs, E, on this end of the shell, similar to the spurs C shown at the opposite end, but they are not strictly essential.

The last inserted end of the shell may be secured to the frame in any suitable way or by
95 any appropriate means. In the case of a mortise without a gain and for a flangeless shell, as shown, I prefer to employ a fastening—as a screw, nail, or staple—which is driven obliquely through the end of the shell into the wall of
100 the mortise, and has its head within the aperture provided for the pulley. I have illustrated a screw as the most desirable of several forms of fastenings that may be used. To permit the hole for the screw to be cast, the end
105 wall of the shell is made suitably inclined, as best shown in Fig. 3, and the hole *a'* and coun-

tersink for the screw-head are so located as to bring the head of the screw wholly within the plane of the frame or within the space of the shell in part occupied by the pulley-wheel.

5 The pulley will generally be made flangeless at both ends, as shown, for the purpose of use in straight mortises, because that form of mortise is more cheaply made; but it is obvious that the end not having the spur D may have
10 a face-flange of the old construction, taking a face-screw as a fastening.

I disclaim a spur which thrusts into the wood at the end of the mortise, or which passes behind a projection formed on the wood at the
15 end of the mortise in cutting the latter, and am restricted to the construction wherein the mortise is straight at its end for the full thickness of the frame, and the spur is placed in position to take its hold behind or upon the
20 rear surface of the frame having such a mortise, a primary object of my invention being to provide a construction in shells of sash-cord pulleys or guides which is adapted to be applied to a straight through mortise—such as
25 may be made by a boring or mortising machine, in contradistinction to mortises having irregularly-shaped end walls especially formed to receive and fit the ends of correspondingly-

shaped shells. I am not, however, restricted to the location of the projections C at the end 30 or ends of the shell.

I claim as my invention—

1. The combination, with a window or other frame having a straight through mortise, of a shell provided at one end with a projection 35 which is in position to engage or overlap the inner surface of the frame, a spur or projection on the shell flush with its outer face, and a suitable fastening for holding the opposite end of the shell. 40

2. A sash-pulley shell provided at one end with an inner spur, as D, located in position to engage the rear surface of the frame, and having its outer surface, *d*, inclined, and one or more outer shallow spurs, as CC, flush with 45 the face of the shell and adapted to be impressed into the wood of the frame, and a fastening for the opposite end of the shell, substantially as described.

In testimony that I claim the foregoing as 50 my invention I affix my signature in presence of two witnesses.

FRANCIS V. PHILLIPS.

Witnesses:

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