

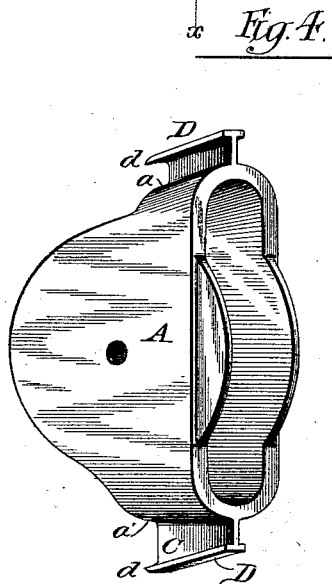
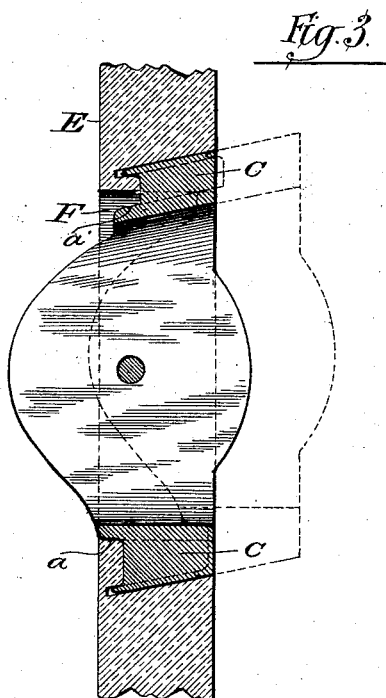
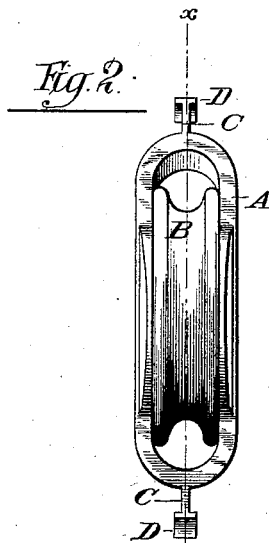
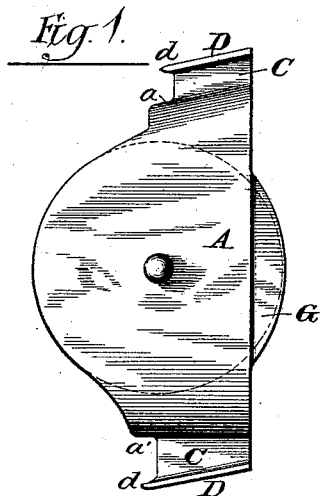
(No Model.)

F. V. PHILLIPS.

SASH CORD GUIDE.

No. 347,509.

Patented Aug. 17, 1886.



*Witnesses:*  
*James M. Whitehead.*  
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# UNITED STATES PATENT OFFICE.

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

## SASH-CORD GUIDE.

SPECIFICATION forming part of Letters Patent No. 347,509, dated August 17, 1886.

Application filed June 15, 1886. Serial No. 205,199. (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 Improvements in Sash-Cord Guides; 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, which form a part of this specification.

This invention relates to that class of sash-cord guides which are provided with means for securing them in the stile or frame mortise by driving, and without the aid of screws or other separate fastenings. It has for its object to provide a construction which obviates the danger of splitting the stile in the act of driving the guide to its place, which does not mutilate or impair the appearance of the frame, which gives the utmost security to the guide when forced home, and which permits the pulley-shell of the guide to be conveniently cast with reliable and uniform accuracy of the projections by which engagement of the shell with the frame is effected.

In the drawings, Figure 1 is a side elevation of a sash-cord guide containing my improvement. Fig. 2 is a front elevation thereof. Fig. 3 is a central vertical or longitudinal section, showing in full lines the shell driven to its place in the pulley-stile of a window-frame, and in dotted lines the shell just started into the mortise. Fig. 4 is a perspective of the improved shell detached.

A represents the body of a pulley-shell cast in a single piece.

B is a pulley or grooved wheel mounted in the shell in the usual way upon a central axis.

C C are very thin webs projecting from the opposite ends of the shell A in the median plane of the pulley, and D D are thin transverse flanges parallel with each other, in which the said flanges C terminate at their outer edges.

The webs C C are desirably less in breadth than the thickness of the pulley-stile of the frame, and the flanges D preferably project beyond the inner edges of the webs, as shown at *d*, and are made as sharp at their inner and projecting ends as it is convenient to cast them,

in order that they may cut across the grain of the wooden stile when driven.

E represents the pulley-stile of a window-frame, having a mortise, F, to receive the shell A. The shell A, having the flanged webs C D, is inserted in the stile E by dropping the rear part of the shell into the mortise F until the webs C or their flanges D rest upon the face of the stile, after which the shell is forcibly pressed inward until the outer margin of the shell is flush with the face of the stile. In this operation the transverse flanges D D and the webs C C enter the wood beyond the ends of the mortise, and by their engagement with the wood retain the shell in place. The transverse flanges D cut the wood across the grain at the ends of the webs C, and thus prevent the latter from splitting the stile.

It will be observed that in the drawings the flanges D D, while parallel with each other, are downwardly and inwardly inclined to the front face of the shell, and that the upper end, *a*, of the shell is similarly inclined, while the opposite or lower end, *a'*, of the shell is horizontal or at a right angle with the face of the shell. This inclined arrangement of the flanges D D is to secure a more perfect binding action thereof and of the lower end of the shell upon the wood when the guide has been forced home. This is done by seeing to it that the bottom of the shell shall strike the lower end of the mortise when the shell is flush or nearly flush with the stile. Further inward movement of or pressure upon the shell will in this case result in pressing the flanges, as well as the lower end of the shell, against the grain of the wood. Moreover, in this construction the tendency of the draft upon the sash-cord is to draw or to hold the shell to its proper place in the stile.

To facilitate starting the shell in the mortise, so that the bottom *a'* thereof will strike the lower end of the said mortise at the proper point, or when the shell is home, or nearly so, I prefer to form the upper end, *a*, of the shell on the same angle as the flanges D, and extending inward a little farther than the adjacent flange D. In that case the shell will be placed in the mortise with its upper end, *a*, against the upper end of the mortise, as shown by dotted lines in Fig. 3, and the forcing-in

pressure will bring the shell simultaneously flush with the face of the stile and in proper bearing at its lower end.

By making the flange D somewhat longer than the web C, to which it is attached, and sharpening its projecting end *d* like a chisel-point, it cuts the wood across the grain somewhat in advance of the web and effectually prevents the latter from splitting the wood as it enters.

The guard-flanges G, which project from the face of the stile and shell, are not herein claimed.

I claim as my invention—

1. A pulley-shell of a sash-cord guide provided with a longitudinally-projecting web, C, upon its end, having a transverse flange, D, on its free margin, substantially as described.

2. A pulley-shell provided with longitudinally-projecting webs C C at its opposite ends, having transverse flanges on their free margins, said flanges being inclined downwardly and inwardly with reference to the face of the shell, substantially as described.

3. The combination, with a pulley-shell, of a longitudinally-projecting web upon the end of the shell, provided with a flange, D, which projects inwardly beyond the web, substantially as and for the purpose specified.

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

FRANCIS V. PHILLIPS.

Witnesses:

M. E. DAYTON,

C. CLARENCE POOLE.