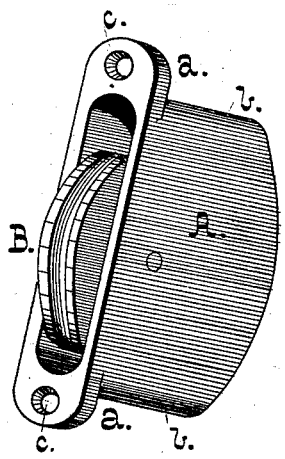
F. B. SLOAN & F. S. CLARKSON.

Sash-Cord Guide.

No. 216,767. Patented June 24, 1879.



Witnesses,

W. A Bertram

Dr L. H. Barclay.

Inventors.

Frank B. Sloan.

Frank S. Clarkson.

by

R. D. Williams.

Attorney.

UNITED STATES PATENT OFFICE.

FRANK B. SLOAN AND FRANK S. CLARKSON, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN SASH-CORD GUIDES.

Specification forming part of Letters Patent No. **216,767**, dated June 24, 1879; application filed April 29, 1879.

To all whom it may concern:

Be it known that we, FRANK B. SLOAN and FRANK S. CLARKSON, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Sash-Cord Guides; and we hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawing, in which the device is illustrated in perspective view.

Our invention relates to what are known as "sash-cord guides," consisting, as a rule, of suitable casings containing sheaves for the sash-cords, and adapted to be inserted in mortises in the window-frames. These mortises have heretofore been cut by bit, mallet, and chisel in the usual way of forming mortises, the shape of the casing being previously scribed on the face of the window-frame. A fair, but rarely accurate, fit was thus attained.

Our present invention consists in certain improvements on the sash-cord guide described in Reissued Letters Patent No. 8,586, granted to us as assignees of Edward H. N. Clarkson and Wm. H. H. Kesler, February 18, 1879, and is especially designed for insertion in a mortise formed by a laterally-cutting bit, which is caused to enter the window-frame and cut laterally to a distance measured by the length of the casing of the sash-cord guide. This method of insertion possesses many advantages. As the bit is of a diameter exactly equal to that of the casing, and as it is readily made to traverse the exact distance required, a perfect fit of the casing in the mortise is insured, and much time is saved.

In the accompanying drawing, A is a cast-metal casing of uniform diameter, the sides thereof meeting the face at right angles and without a flange. The ends *b* are rounded in the arc of a circle having the same diameter as the casing A, and the end flanges, *a*, are similarly formed, being perforated at *c* for the securing-screws. B is the sheave, suitably mounted in the casing.

In forming the mortise in the window-frame the bit is caused to enter the wood at a point corresponding to the center of the circle of which the end flange, *a*, is the half, and is allowed to enter to a distance exactly equal to the thickness of the flange. It is then moved (or the window-frame is moved relatively to it) until the axis of the bit registers with the axis of the semi-cylindrical end *b*, when the bit is projected forward, perforating the frame. It is next moved laterally a distance exactly equal to that between the ends *b b*, when it is withdrawn until its point is below the face of the frame by the thickness of the flange *a*, when it is again moved laterally to a distance from its original point of entrance equal to the length of the casing A over all, and is finally withdrawn entirely.

It is obvious that the slot or mortise so formed is of the exact size and shape of the casing A, and absolute accuracy of fit necessarily follows.

From the foregoing description of the construction of the device and the method of forming the mortise it will be seen that the essential features of the sash-cord guide are, first, that it shall be devoid of lateral flanges; and, second, that its ends *b* and end flanges shall be, respectively, truly semi-cylindrical and semicircular.

We are aware that sash-cord guides having unflanged rounded ends, and others having flanged square ends, are not new, and such we do not claim.

We claim—

The sash-cord guide herein described, consisting of a sheave, B, mounted in a casing, A, having semicircular end flanges, *a*, semi-cylindrical ends *b*, of uniform diameter, and sides that meet the face at right angles, and without a flange, whereby the device is adapted for insertion in a mortise formed by a laterally-cutting bit, substantially as described.

FRANK B. SLOAN.
FRANK S. CLARKSON.

Witnesses:
R. D. WILLIAMS,
J. C. GITTENGER.