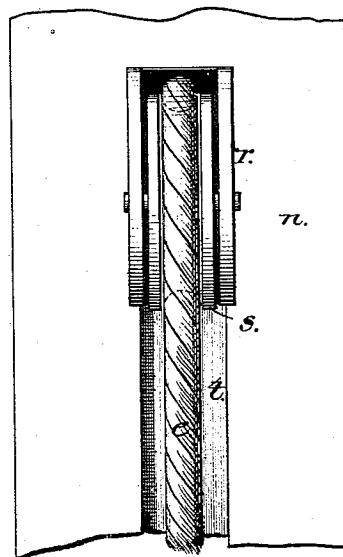


J. SMITH.  
Sash-Pulley.

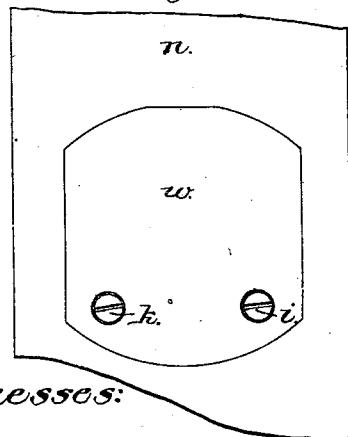
No. 167,478.

Patented Sept. 7, 1875.

*Fig. 1.*



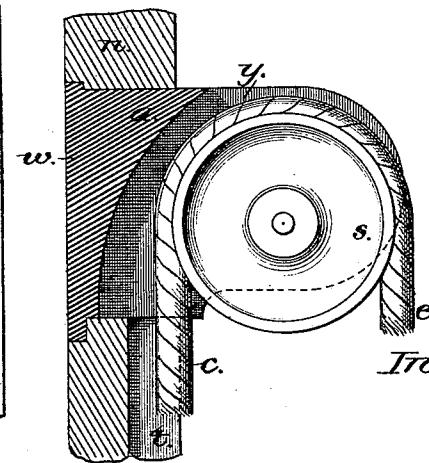
*Fig. 2.*



Witnesses:

Henry Price,  
Hermann Lufse.

*Fig. 3.*



Inventor:

Jacob Smith.

# UNITED STATES PATENT OFFICE.

JACOB SMITH, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN SASH-PULLEYS.

Specification forming part of Letters Patent No. **167,478**, dated September 7, 1875; application filed March 13, 1875.

### CASE B.

*To all whom it may concern:*

Be it known that I, JACOB SMITH, of Chicago, in the county of Cook and State of Illinois, have invented an Improvement in Sash-Pulleys, of which the following is a specification:

The nature of my invention consists of a blind-sash pulley, having a solid block or shoulder with a broad plain face, which face is sufficiently large to be adjusted in the inside surface of the jamb-casing of a window, and firmly held by means of screws in such manner that the pulley may be removed or adjusted from the inside of the window without removing the casing.

In the drawing, Figure 1 represents the pulley in place, showing the several parts, except the solid part of the shoulder or block. *s* represents the roller, and *r* the jaws, of the pulley. Fig. 2 is a full view of the plain face *w* of the pulley-block, and the inside surface of the jamb-casing of a window, showing the manner in which the face of the pulley-block is adjusted in the surface of the jamb-casing. *w* represents the face of the pulley-block, *k* and *i* the screws by which it is fastened, and *n* the inside surface of the casing. Fig. 3 is a vertical section giving a full view of the several parts of the pulley and casing. *w* shows the face of the pulley-block; *a*, the solid part of the pulley-block, which gives strength to the pulley, and fills the space around the roller *s* of the pulley, so as to keep the cord upon the roller; *y*, the channels or space through which the cord passes while moving over the pulley, the channel being of such size as to keep the cord upon the roller, and to corre-

spond with the groove *t*. *s* is the roller of the pulley. *n* is the inside surface of the jamb-casing; *w*, the plain face of the pulley-block, as adjusted in the surface of the jamb-casing; *c*, the end of the cord to be attached to the sash; and *e* the end attached to the weight, which cord passes upward through a groove, *t*, in the outside of the jamb-casing, over the roller of the pulley. *t* represents a groove in the outside of the jamb-casing, connected with the pulley in such manner that a cord running in the groove may pass over the roller of the pulley.

The pulley is readily removed from the inside of the window, the face of the pulley being enough larger than the pulley-hole to be firmly held by means of screws sunk in the casing.

I do not broadly claim a sash-pulley, with the ordinary face-plate and inwardly-projecting sides; neither do I claim the form or configuration known to the trade as hot-house pulleys; but

What I do claim as new, and desire to secure by Letters Patent, is—

As an improved article of manufacture the herein-described sash-pulley, formed with a solid plain face, *w*, and frame or pulley-case, having a solid shoulder, *a*, whereby the sash-pulley is let in flush with the window-frame, projecting the cords forward and concealing them from view, substantially as set forth.

JACOB SMITH.

Witnesses:

J. R. PARKER,  
NATHAN GERSON.