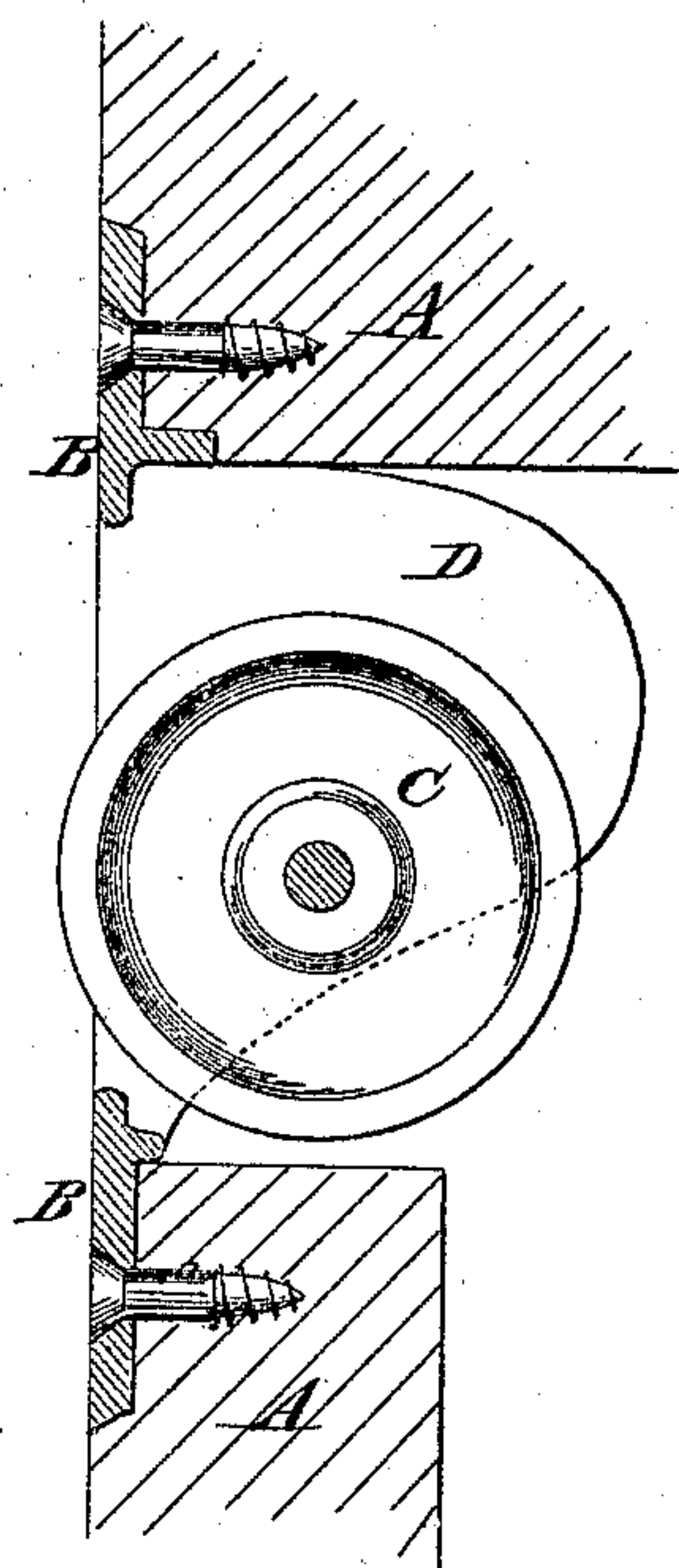


**A. HALLADAY.**  
**Sash-Pulleys.**

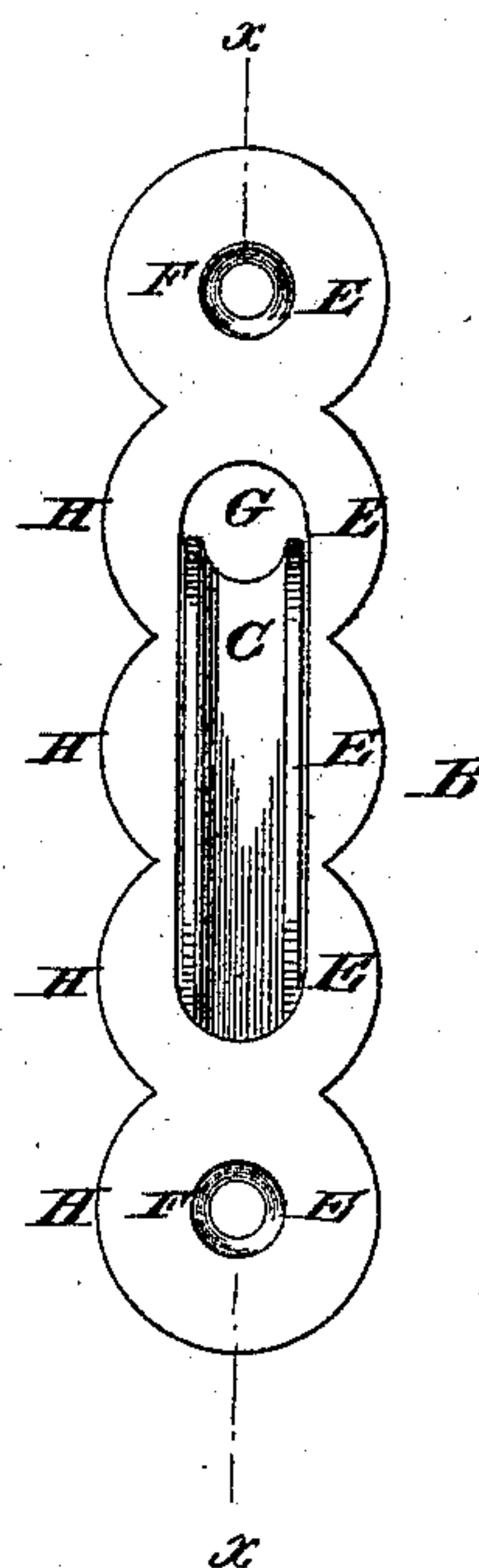
No. 147,322.

Patented Feb. 10, 1874.

*Fig. 1.*



*Fig. 2.*



**Witnesses.**  
*Justave Dietrich*  
*Edgwick*

**Inventor.**  
*A. Halladay*  
**Per** *Munnick*  
**Attorneys.**

# UNITED STATES PATENT OFFICE.

AMOS HALLADAY, OF WESTFIELD, MASSACHUSETTS, ASSIGNOR TO DUANE  
D. GRIFFIN, OF SAME PLACE.

## IMPROVEMENT IN SASH-PULLEYS.

Specification forming part of Letters Patent No. **147,322**, dated February 10, 1874; application filed  
August 16, 1873.

*To all whom it may concern:*

Be it known that I, AMOS HALLADAY, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Sash-Pulleys, of which the following is a specification:

The invention relates to means for facilitating and cheapening the application of plates to window-frames and of the pulley in the plates. The invention consists in a peculiar shape of the sash-pulley plate, whereby a single auger will be all that is necessary in putting the plate and pulley in the window-frame.

In the drawing, Figure 1 is a sectional side view, the section being on the line *x x* of Fig. 2. Fig. 2 is a front view.

Similar letters of reference indicate corresponding parts.

A is the window-frame. B is the face-plate, and C is the sheave or cord-wheel.

For the sheave and side flanges D no novelty is claimed. The improvement applies specially to the face-plate B. This plate is formed of a series of round disks, E, connected together so as to form a plate with a central mortise, G, for the wheel, and having screw-holes F F at the ends, by means of which it is fastened to the frame. The outer edges of the plate, therefore, present a series of arcs of cir-

cles, H, while the ends of the plate are nearly entire circles. It will be seen that with this formation the entire sash-pulley may be inserted in the window-frame with a simple boring-bit and brace, a hole being bored for each of the disks E, the end holes being simply deep enough to admit the thickness of the plate and leave the face flush with the surface of the frame. The other holes are bored through or sufficiently deep to admit the flanges D and cord-wheel. No chisel or cutting with any other tool than the bit is required to insert the pulley, thus greatly facilitating and saving much time in the operation.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is—

A sash-pulley face-plate, B, formed of the series of conjoined disks E, each of the same diameter, the end ones centrally perforated and the middle ones having one common slot, G, as described, so that with a single auger the plate may be inserted in the window-frame, while the pulley will require no special mortise.

AMOS HALLADAY.

Witnesses:

F. LEONARD,  
N. T. LEONARD.