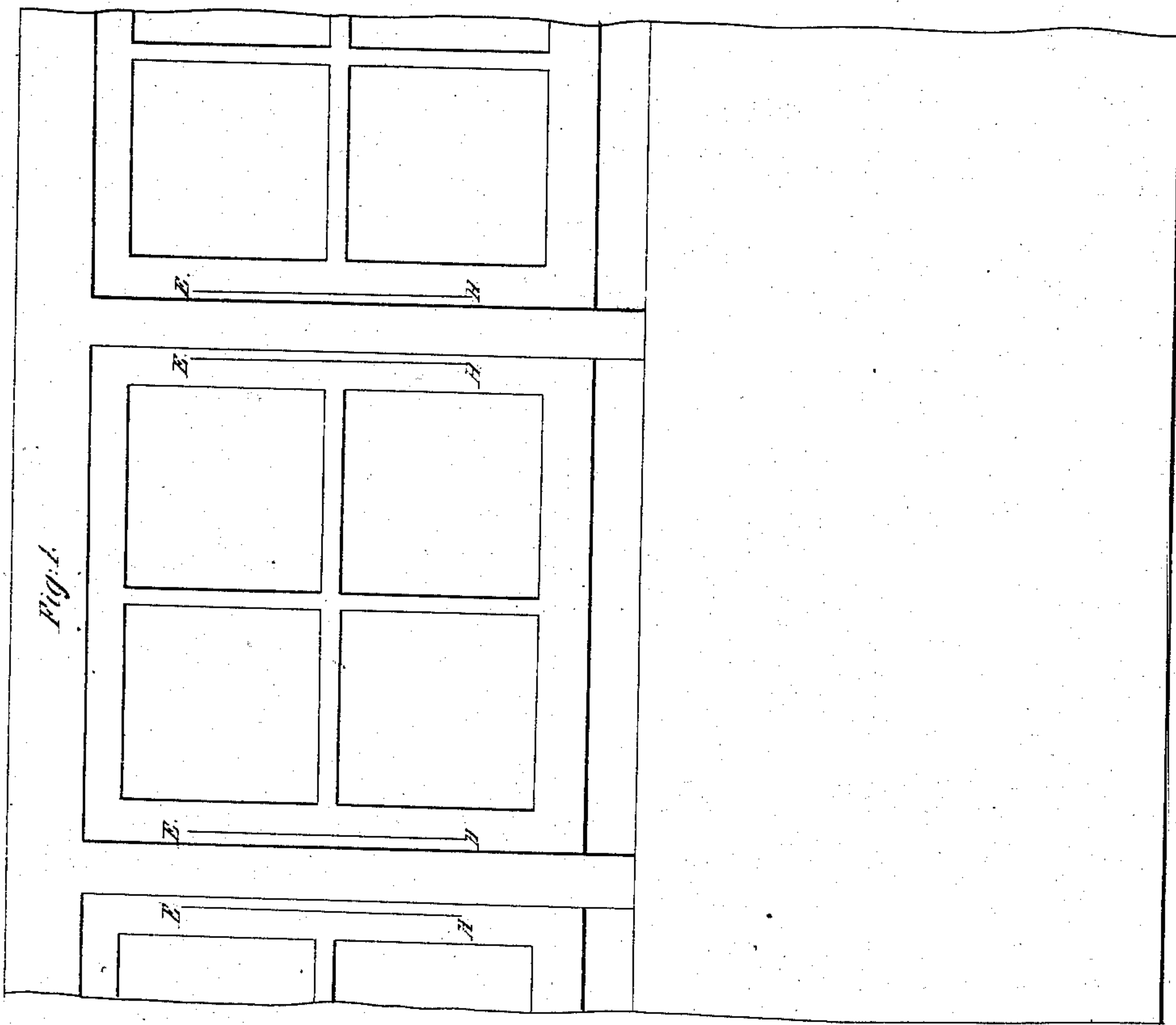
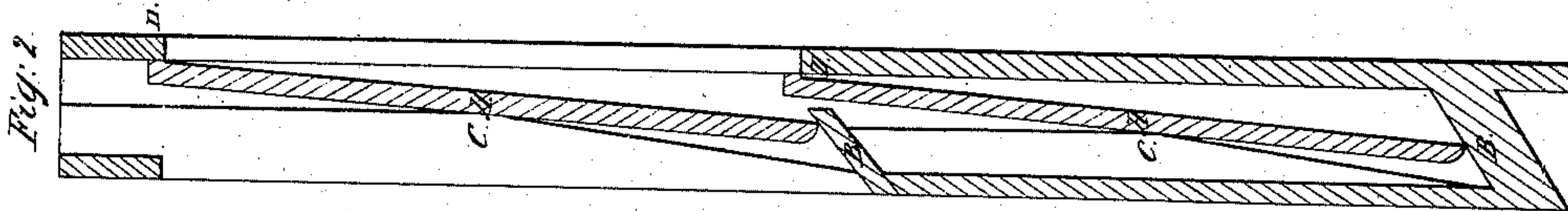


*T. Silver.*

*Tightening Windows.*

*N<sup>o</sup> 11,092.*

*Patented Jun. 13, 1854.*



*Witnesses:*

*R. C. Davis*  
*Thos. Millette*

*Inventor:*

*T. Silver*

# UNITED STATES PATENT OFFICE.

THOMAS SILVER, OF PHILADELPHIA, PENNSYLVANIA.

## TIGHTENING WINDOWS.

Specification of Letters Patent No. 11,092, dated June 13, 1854.

*To all whom it may concern:*

Be it known that I, THOMAS SILVER, of Philadelphia, in the county of Philadelphia, State of Pennsylvania, have invented a  
5 new and Improved Mode of Tightening Windows, so as to Prevent the Shaking or Lateral Motion of the Sash, and thereby Prevent Any Noise or Rattling of the Same; and I do hereby declare that the following  
10 is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in  
15 providing an inclined plane for the lower bearing of the sash of the window with a swell or projection in the window frame or casing forming a lateral bearing of the sash; these two producing an opposite bearing  
20 of the sash on the window frame or casing near the top of the sash, which bearings tighten the sash when in place and thus prevent it from shaking and producing any noise or rattling. It may be applied alike  
25 to windows in omnibuses, coaches, carriages, stages, rail-road cars or vehicles of any other description, also to windows used in canal boats, steamboats, and ships, and also to windows in permanent buildings, such  
30 as dwellings, stores, warehouses and other similar buildings, my invention being intended to apply to windows in whatever instance they may be used.

To enable others to make and use my invention I give the following description thereof, which will be understood by reference to the annexed drawing.

Figure 1 represents an elevated or front  
40 view of a window. Fig. 2 is a sectional view of a window frame or casing similar in some respects to those ordinarily used in

coaches which forms the grooves or ways in which the window slides.

A, A, Fig. 2, is a sectional view of a window sash showing the position of said sash  
45 when the window is both closed and opened.

At B, B, Fig. 2, are two inclined planes which form the lower bearings for the window sash.

At C, C, Fig. 2, are swells or projections  
50 in the window frame or casing which are intended to form a lateral or horizontal bearing for the sash.

It will here be seen that when a window sash is placed in either its upper or lower  
55 position resting on the oblique base B, B, Fig. 2, and against the lateral bearing C, C, Fig. 2, its own weight will cause its top extremity to press against the opposite side of the groove or slide at D, D, Fig. 2, thereby preventing any lateral motion or oscillation. The angle of bearing at B, B, Fig. 2, may be raised to suit practical purposes. An adjustable screw or other device may be  
60 used to regulate the swell or bearing at C, C, Fig. 2. An open seam or slit may be made in the margin of the sash as represented in Fig. 1, say from E to H (or other greater or less length), in order to relieve the glass  
65 or other substance used in the sash from the pressure or binding effect produced by  
70 the lateral bearing at C, C, Fig. 2.

What I claim as my invention is—

The swell or lateral bearing C, C, Fig. 2, in combination with the oblique base B, B,  
75 represented in the drawing, applied in the manner and for the uses and purposes herein described.

THOS. SILVER.

Witnesses:

R. C. DAVIS,  
THOS. MILLETTE.