

F. EICHENLAUB & J. GABRIEL.

SASH-BALANCES.

No. 186,549.

Patented Jan. 23, 1877.

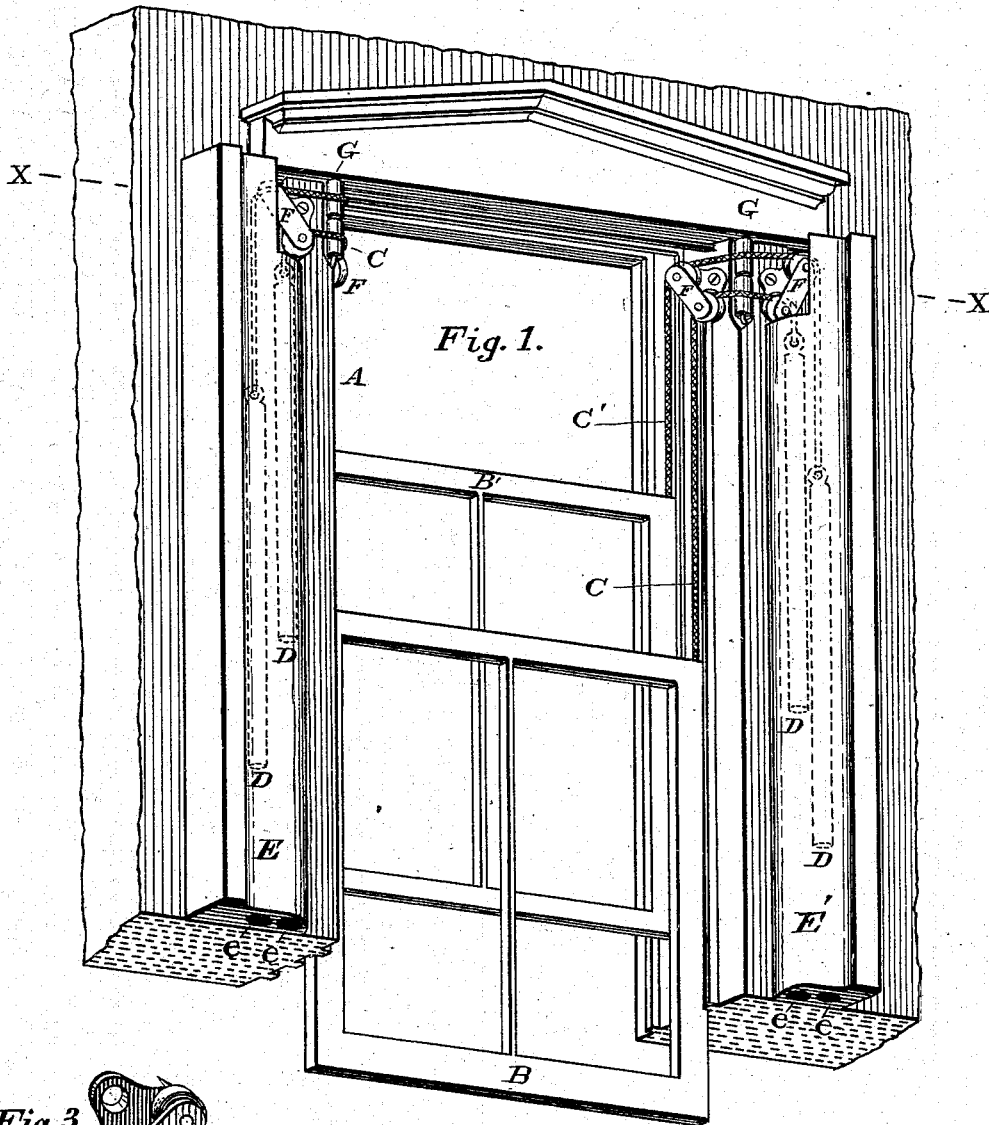
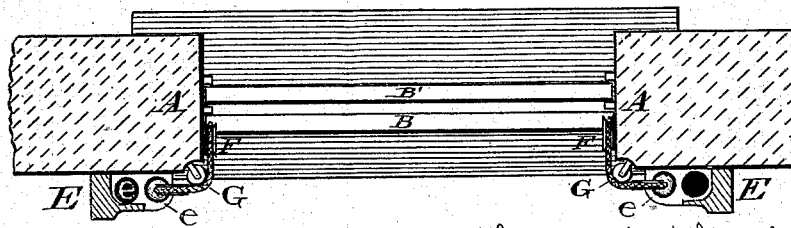


Fig. 1.



Fig. 3.

Fig. 2.



Attest.
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UNITED STATES PATENT OFFICE

FRANK EICHENLAUB AND JOHN GABRIEL, OF LAWRENCEBURG, INDIANA.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **186,549**, dated January 23, 1877; application filed November 6, 1876.

To all whom it may concern:

Be it known that we, FRANK EICHENLAUB and JOHN GABRIEL, both of Lawrenceburg, Dearborn county, Indiana, have invented a new and useful Improvement in Sash-Balances, of which the following is a specification:

This is a contrivance to enable the conversion of a window of the common solid-framed kind into one with balanced sashes. For this purpose we provide a pair of pilasters, of which each has two vertical channels for as many counter-weights of common or any suitable form. Cords, being attached to the sashes in the customary manner, are so led over suitable sheaves or pulleys as to pass around the jamb-corners, and to occupy said channels by their weighted extremities. Thus furnished, a pair of common sashes become as completely balanced as if provided with the most costly box-frame, and at a comparatively trifling expense.

In the accompanying drawings, Figure 1 is a perspective view of a window provided with our balance attachment. Fig. 2 is a section at the line *x x*. Fig. 3 shows one of our pulleys detached.

A may represent a common solid window-frame, and B B' a pair of ordinary sashes. C C' are cords, such as usually employed in box-frame windows, and which carry, at their extremities, customary counter-weights, (see dotted lines D.) These weights, however, instead of occupying pockets in a box-frame, occupy channels *e* in a pair of pilasters, E E'.

In order to enable the cords to reach from their respective sashes to points immediately over their proper channels, we provide a set of sheaved brackets, F, four in number, which we attach to the open and inner faces, respectively, of the window-frame, in the manner shown, and also two pairs of rollers, G, which we attach to the corners of the frame.

The four sheaved brackets F may be precise fac-similes of one another. Our balance attachment may be quickly and cheaply applied to a common solid sash-frame, without removal thereof, and without any change or mutilation of the building in any part. The pilasters may be plain or may have any ornamental configuration.

The essential elements of our improvement are the channeled pilasters E e E' e and the pulleys F. The rollers G may be dispensed with by conducting the cords through auger-holes bored obliquely through the jambs.

We claim herein as new and of our invention—

The combination of channeled pilasters E e E' e with sheaves or rollers F, or their equivalents, for the purpose set forth.

In testimony of which invention we hereunto set our hands.

FRANK EICHENLAUB.
JOHN GABRIEL.

Attest:

GEO. H. KNIGHT,
HARRY E. KNIGHT.