No. 630,508. Patented Aug. 8, 1899.

ANTHONY ISKE & ALBERT ISKE.

REVERSIBLE WINDOW SASH.

(No Model.) (Application filed Feb. 6, 1899.)

Fig. 1.

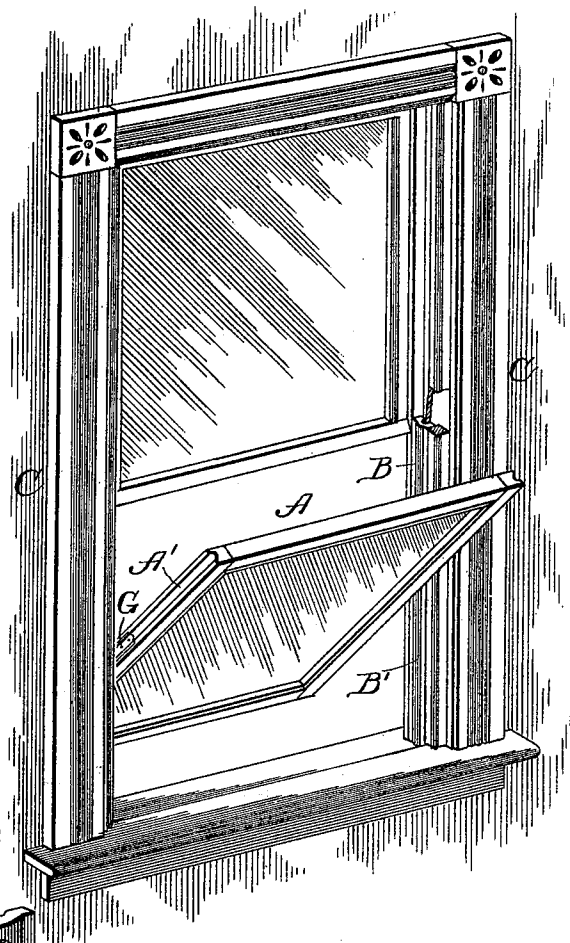


Fig. 2.

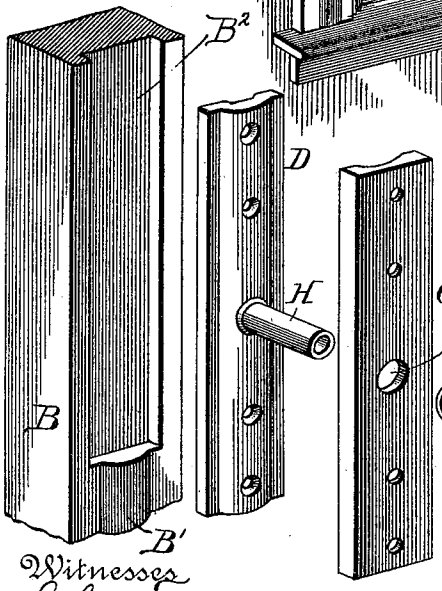
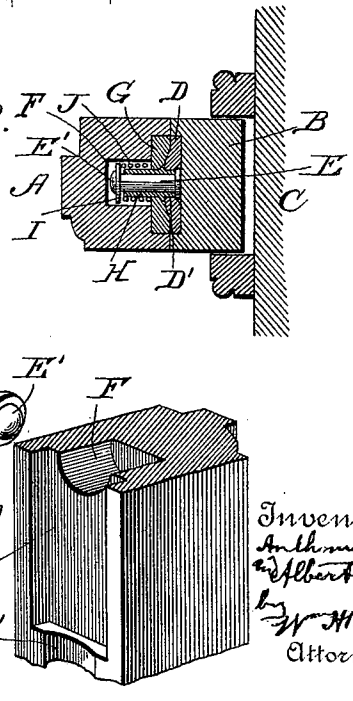


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

ANTHONY ISKE AND ALBERT ISKE, OF LANCASTER, PENNSYLVANIA.

REVERSIBLE WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 630,508, dated August 8, 1899.

Application filed February 6, 1899. Serial No. 704,711. (No model.)

To all whom it may concern:

Be it known that we, ANTHONY ISKE and ALBERT ISKE, citizens of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Reversible Window-Sashes, being an improvement on our Letters Patents No. 462,488, granted November 3, 1891; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of our invention is to provide an improvement in window-sashes so constructed that the sash can be reversed or turned with its outer side in without disconnecting any of its parts, as well as slid vertically in the usual manner.

In the accompanying drawings, Figure 1 represents a perspective view of a window frame and sash fitted with our improvements, the sash being slightly turned. Fig. 2 represents a cross-section at the center of the sash and window-frame shown in Fig. 1. Fig. 3 represents a detail view of the separate parts forming the spring-pivot and its fastenings.

The window-sash proper, A, is provided along the entire length of each side with two strips B B, between which it is pivoted and adapted to turn on a central horizontal axis. These strips B are rectangular and adapted to slide vertically by means of weights, such as are usually attached to window-sashes, in grooves in the window-frames C. Said strips are provided in their outer faces next the window-frame C with longitudinal grooves in which the ropes to which the weights are attached are fastened. The inner faces of the strips B are provided with central longitudinal oval beads B′, extending their entire length. In each of said inner faces a rectangular depression B^2 is made, extending to a short distance equally above and below the central point, and in this depression a metal plate D is sunk and fastened by screws, said plate coming flush with the top of the inner face of the strip B, where it is provided with a convex bead adapted to form a continuation of the bead B′. Through the center of each of these plates D a hole D′ is bored, through which a pivot E is passed and has one end flattened down against the flat side of the plate D to prevent its passing through. The other end of the pivot E extends out considerably beyond the beaded side of the plate D.

The sash proper, A, is provided on each side with a longitudinal shallow groove A′ along its entire length, adapted to receive the bead B′ aforesaid. At the center of each side of the sash A a deep cylindrical recess or chamber F is bored and a rectangular depression F′ made, corresponding to that in the strip B, in which a metal plate G is sunk and fastened by screws, said plate being flush on top with the side of sash A and grooved in continuation of groove A′. This plate is provided with a central hole G′, located over the aforesaid recess or chamber F in the sash and slightly smaller in diameter.

On the plate D, over the hole D′, a sleeve H is welded and adapted to extend at right angles through the hole G′ in plate G nearly to the bottom of the cylindrical recess or chamber F. This sleeve is of slightly-smaller diameter than the hole G′ and is adapted to fit closely but turn in it, said sleeve being rigid with the plate D. The aforesaid pivot E passes through said sleeve to the bottom of the recess or chamber F and is there provided with a head E′. Against the under side of this head is placed a washer I of larger diameter, and between said washer I and the inner flat side of the plate G is a coil-spring J, surrounding the sleeve H.

The operation of our invention is as follows: When the sash A is turned on the pivots E between the strips B, which are kept in place in the grooves of the window-frame C, the top edges of the grooves A′ rise over the beads B′, and thus press outward the strips B. These strips B are loosely fitted in the grooves of the window-frame, and when pressed outward become clamped tightly against the said frame, thus preventing any accidental slipping up or down when the sash is turned. It will be seen that the outward pressure of each strip B will raise its respective pivot E from the bottom of the recess or chamber F and compress the spring J between the washer I and plate G. Therefore when the sash is turned back into place or

entirely reversed the strips B will be brought into their original position by the tension of said springs J, so that they will again fit loosely in the grooves of the window-frame and can be slid vertically in the same, carrying up and down with them the sash A.

When it is desired to apply our improvement to heavy windows, the metal plates D and G are extended the entire length of the sash and strips.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

A window-sash having in its sides vertical recesses F', deeper recesses or chambers F and vertical grooves A', in combination with a pair of strips B which are vertically movable in the window-frame with recesses B^2 corresponding to recesses F' and with convex beads B' adapted to fit into grooves A', plates G fitting into recesses F' and having central holes G', plates D fitting into recesses B^2 and having rigid sleeves H projecting from them through the holes G' into the recesses or chambers F, the pivot-pins E extending through the said sleeve and into the said chambers, and the replacing-springs J surrounding the said pivot-pins within the said chambers, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ANTHONY ISKE.
ALBERT ISKE.

Witnesses:
GEO. B. BRESSLER,
W. H. FARLEY.