S. Kepner,

Window Sash.

No. 92,841. Patented July 20. 1869

Fig. 1.

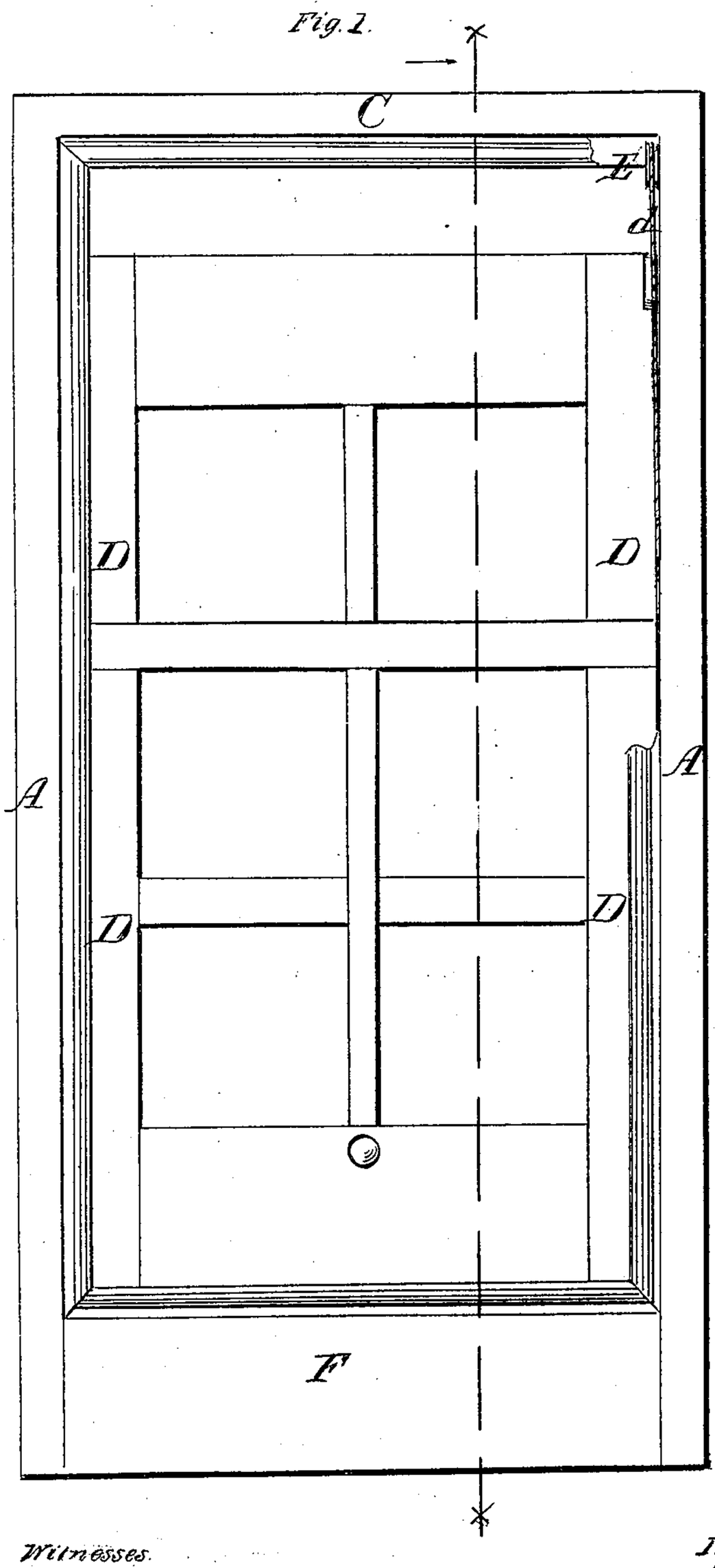
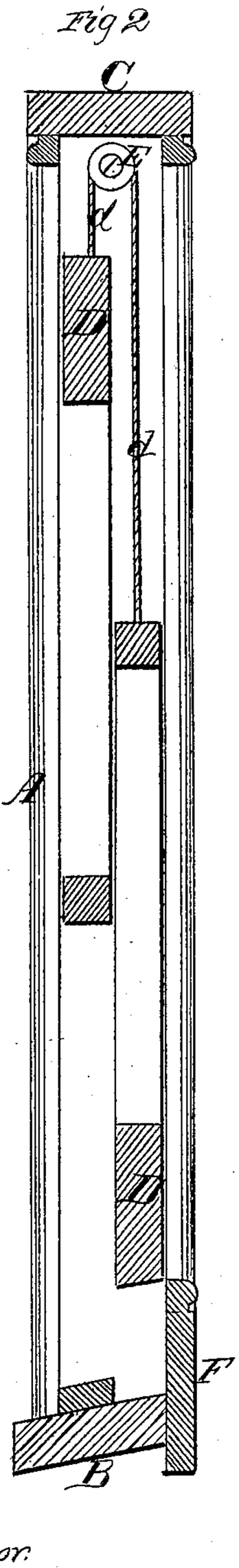


Fig 2



Witnesses.

A. Edwards

Paul J. Hart

Inventor.

S. Kepner

by Brundle and Dyer Attys

United States Patent Office.

S. KEPNER, OF POTTSTOWN, PENNSYLVANIA.

Letters Patent No. 92,841, *dated July* 20, 1869.

IMPROVED WINDOW-SASH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, S. KEPNER, of Pottstown, in the county of Montgomery, and in the State of Pennsylvania, have invented certain new and useful Improvements in Self-Balanced Window-Sash; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 represents a front elevation of my improved window-frame and self-balanced shaft, and

Figure 2, a vertical cross-section of the same, on the line *x x* of fig. 1.

Letters of like name and kind refer to like parts in each of the figures.

In ventilating a room in winter, where self-balanced sash are used, much difficulty has been experienced in so arranging them as to permit the upper sash to be dropped without correspondingly raising the lower sash; and of the many devices used for the purpose of overcoming this difficulty, none have been free from serious objections, such as complication of parts, increased cost, &c.

To remove these objections is the design of my invention, which consists in increasing the height of the casing or bead-strip upon the inner side of the sill, as will hereinafter be fully set forth.

In the annexed drawing—

A A represent the sides, B the sill, and C the top of the window-frame, of usual construction.

Sliding vertically within said frame are two sash, D D′, of ordinary form, which counterbalance each other, by means of cords, *d d*, secured to the upper right and left-hand corners of each, and passing over pulleys E E, suitably pivoted upon the inside of the frame, near its top, the length of said cords being such as to just close the upper sash, when the lower sash is shut down upon the sill.

If desired, the sash may be connected by means of a single cord, secured to the top rail, midway between its ends.

It will be evident that when thus suspended, if one sash is moved, a corresponding opposite motion will be imparted to the other sash, so that it will be impossible to lower the upper sash for the purpose of ventilation without in the same degree raising the lower sash, and admitting a draught of air.

To obviate this difficulty, I increase the height of the casing or bead-strip F upon the sill, as much as it is desired to lower the upper sash, usually about two inches, which allows the lower sash to be raised to a height equal to such increase, and the upper sash correspondingly lowered, without producing an opening below said sash, by which means the heated and impure air is allowed to escape from the room, without the admission of a current of cold air from the lower part of the window.

This arrangement effectually removes all objections to this manner of suspending sash, and is especially applicable to the windows of sleeping-rooms, where ventilation is desired without a draught of cold air, with its injurious and often fatal results, and, from its cheapness, its general adoption is deemed certain.

Having thus fully set forth the nature and merits of my invention,

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

The casing or beading-strip F, when raised or increased in height, as shown, in combination with the self-balanced sash D and D′, substantially as and for the purpose specified.

In testimony that I claim the foregoing, I have hereunto set my hand, this 24th day of May, 1869.

S. KEPNER.

Witnesses:

GEO. S. PRINDLE,

EDM. F. BROWN.