J. W. Hoffman,

Sash Balance.

No. 6,584. Patented July 10, 1849.

Fig. 4.

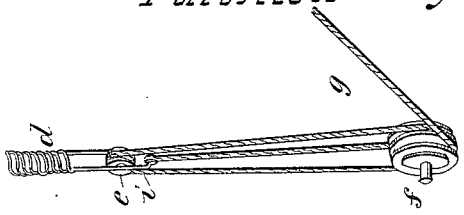


Fig. 3.

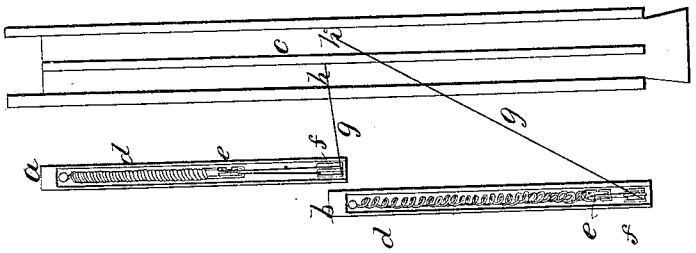


Fig. 2.

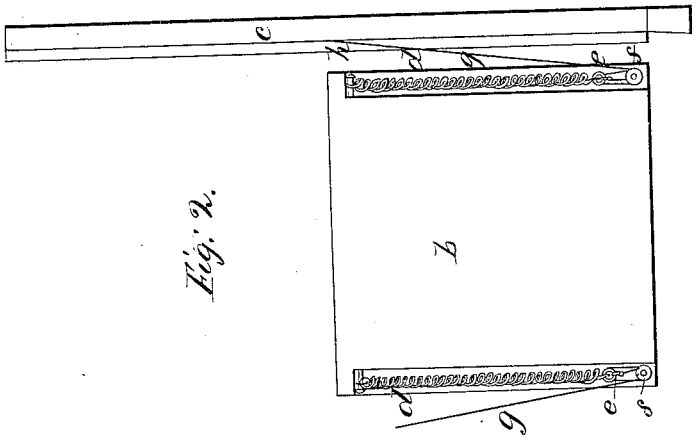
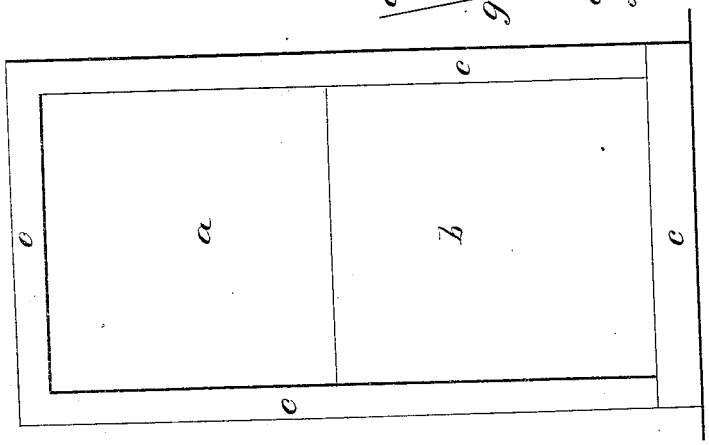


Fig. 1.



UNITED STATES PATENT OFFICE.

J. W. HOFFMAN, OF PHILADELPHIA, PENNSYLVANIA.

SPRING-AND-TACKLE SASH-STOPPER.

Specification of Letters Patent No. 6,584, dated July 10, 1849.

To all whom it may concern:

Be it known that I, JOHN W. HOFFMAN, of the county of Philadelphia and State of Pennsylvania, have invented a new and useful Machine for Raising and Lowering Sash in Window-Frames, known as "Hoffman's Spring-and-Tackle for Window-Sash;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is an elevation of window frame with sash in, Fig. 2, is a front view of window sash and jamb, Fig. 3, is an end view of window sash, with the jamb of window frame turned in, Fig. 4, is a perspective view of spring pulleys and cord.

Fig. 1.—C, in Fig. 1, is window frame, A, and B, are sash in frame.

Fig. 2.—B, in Fig. 2, is a window sash, C, is a spring, E, and F, are pulleys, G, is a cord, C, is jamb of window frame, H, is parting and strip in jamb.

Fig. 3.—A, and B, in Fig. 3, are window sash, D, D, are springs, E, E, and F, F, are pulleys, G, G, are cords, C, is jamb of window frame, H, H, are points at which cord is fastened in jamb.

Fig. 4.—C, in Fig. 4, is lower end of spring, E, and F, are pulleys, G, is cord, I, is coupling.

In the practical application of my invention to window sash, for the purpose of raising and lowering the sash when in the frame, in the end of the sash a groove is made, as shown in Figs. 2 and 3, B, Fig. 2, being a front view of the window sash, with the inside of the groove taken off, this is done for the purpose of showing the more plainly the working of the spring, pulleys, and cord, in the lower end of the groove, two pulleys are fastened both turning on the same axle, as shown by F, in Figs. 2, 3, and 4, these pulleys, and also pulley E, in Figs. 2, 3, and 4, are turned out on the edge, so that a cord will turn on the pulleys; in the groove as shown in Figs. 2, and 3, a spiral spring is placed, the upper end of the spring is fastened to the sash, as shown in Figs. 2 and 3, at and to the lower end of spring, C, Figs. 2, and 3, a pulley is fastened, shown by, E, Figs. 2, 3, and 4, a coupling is also made fast, to the lower end of spring, D, extending below pulley, E, as shown by, I, in Fig. 4, to coupling, I, Fig. 4, cord, G, is fastened, cord, G, goes from, I, down around pulley, F, Figs. 2, 3, and 4, then up around pulley, E, Figs. 2, 3 and 4, from, E, down again around, F, then up again, where the cord, G, is fastened in the window jamb, as shown by, H, H, in Fig. 3.

When the spiral spring pulleys and cord are applied to windows, as herein described, the sash can be raised or lowered with the greatest of ease, and the sash will stay at any height they are put, by this invention I dispense entirely with the use of weights, and boxes in window frames, and by this I save labor, and expense, at the same time furnish a better article not subject to get out of repair, in any way, when my invention is applied as shown in Fig. 3 with the sash closed, the spring in the upper sash A, Fig. 3 will be contracted together while the spring in the lower sash, B, Fig. 3 will be expanded or drawn down, when the upper sash is moved down, the spring will expand letting the upper sash go down to the sill of the window frame, in the same manner the spring in the lower sash will contract as the sash in moved up, keeping the sash at any point.

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

The application of the spiral spring, D, and also pulleys E, andu, F, applied and operating substantially as herein described, for raising and lowering window sash in windows.

JOHN W. HOFFMAN.

Witnesses:
C. ISARD,
ARCHIBALD K. LEE.