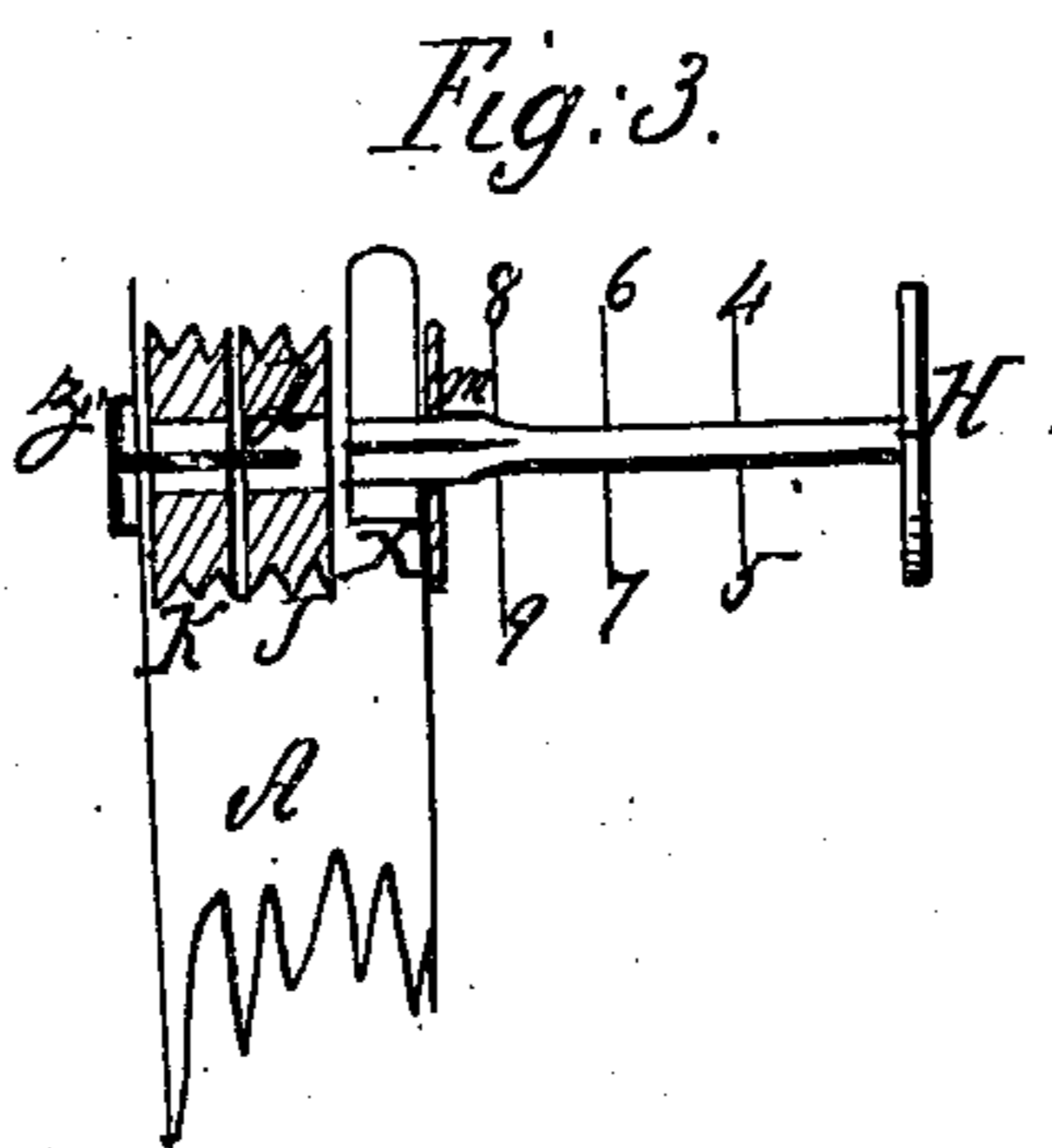
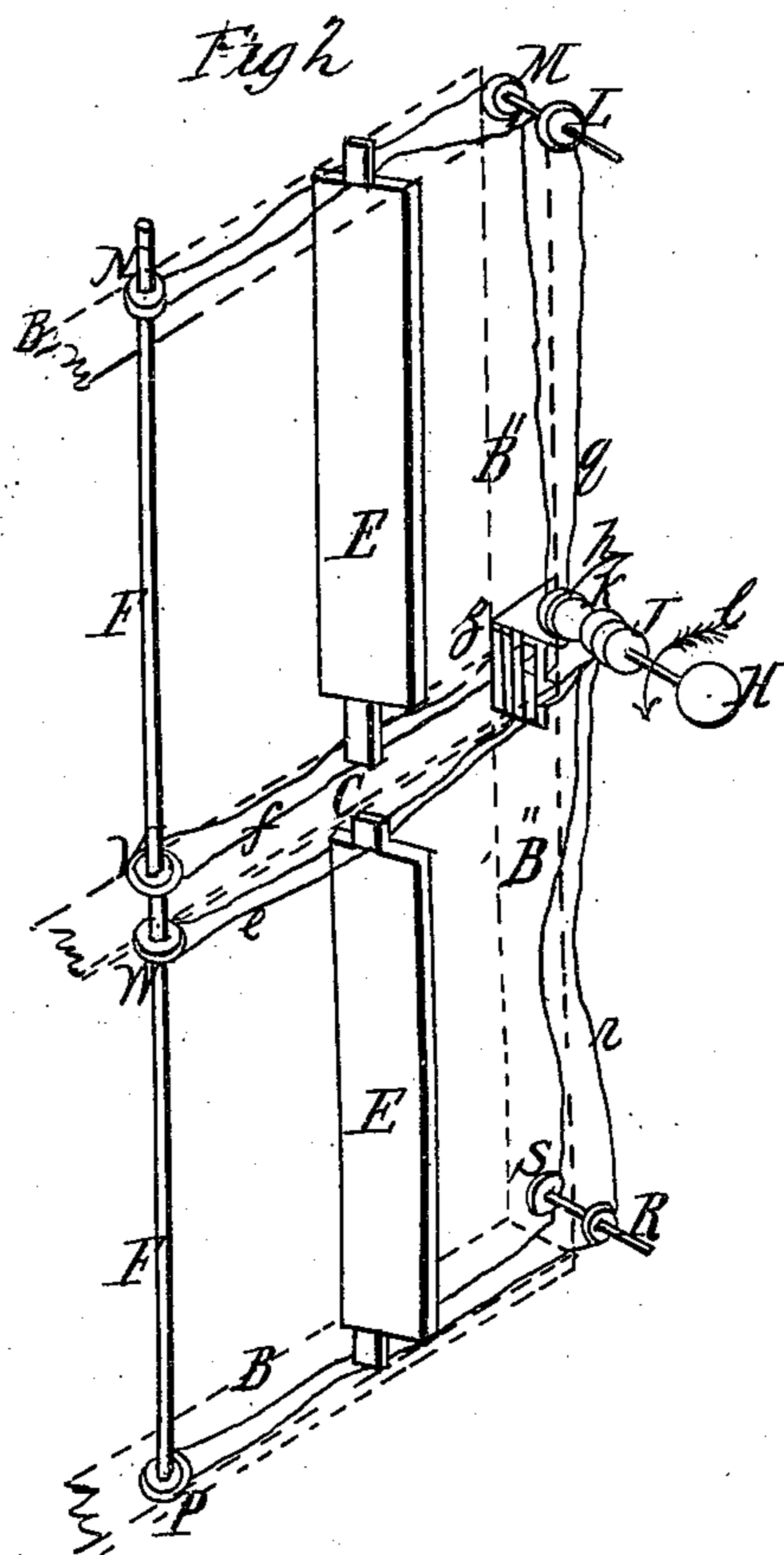
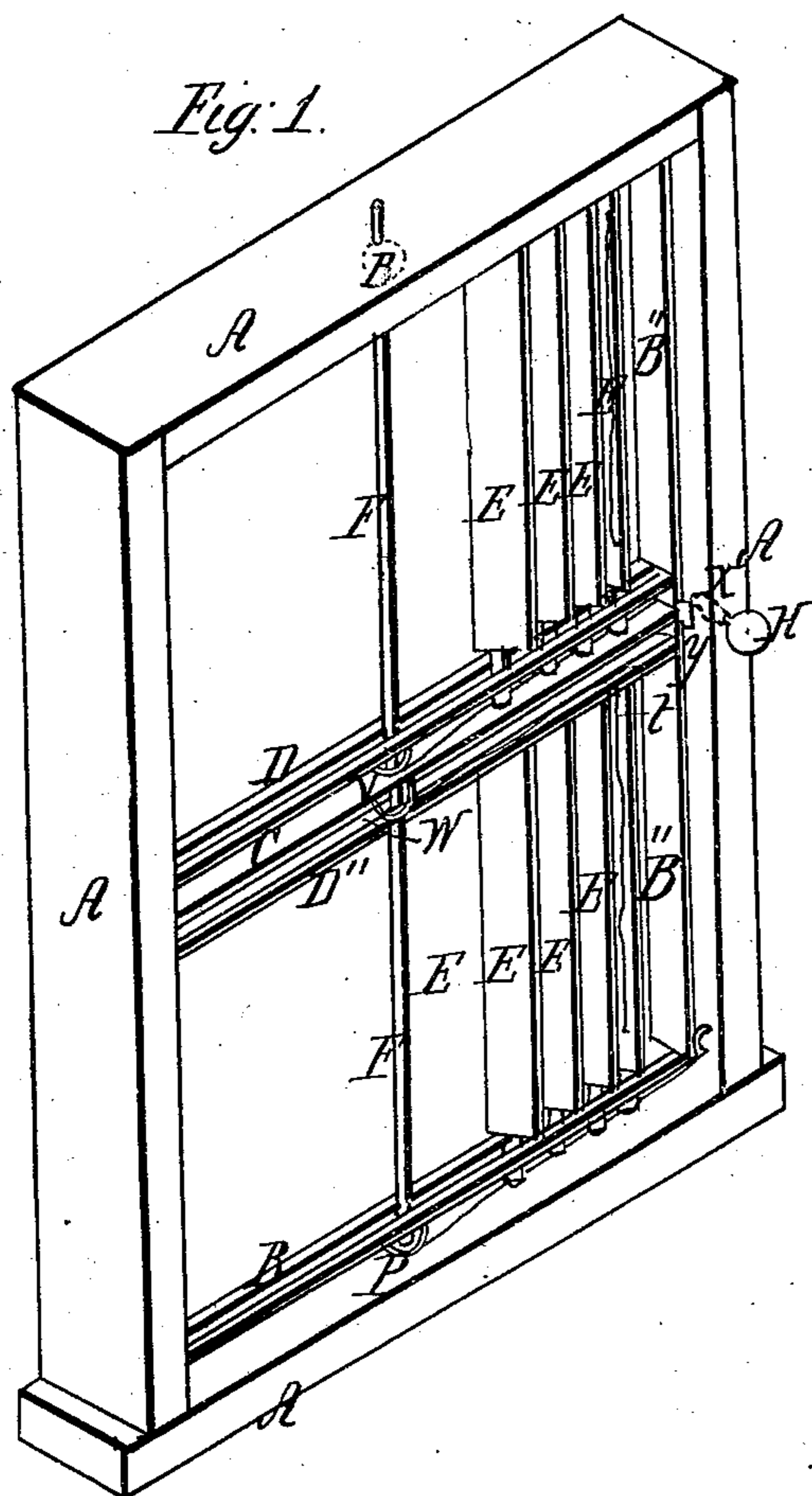


*Window Blind.*

N<sup>o</sup> 85,818.

*Patented Jan. 12, 1869.*



Witnesses;

W. B. Richards  
L. D. Marsh.

*Inventor,*

Jones Harding

# United States Patent Office.

JONES HARDING, OF GALESBURG, ILLINOIS.

Letters Patent No. 85,818, dated January 12, 1869.

## IMPROVEMENT IN WINDOW-BLIND.

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, JONES HARDING, of Galesburg, in the county of Knox, and State of Illinois, have invented a new and useful Window-Blind; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view, and

Figures 2 and 3 are sectional views.

To enable others skilled in the art to make and use my invention, I will proceed to the following fuller and clearer description of its construction and operation.

The nature of my invention relates to vertical window-blinds, so constructed and arranged that they may be operated with a key in the side frame; and

The invention consists in arranging four sets of vertical blinds in the quarter sections of a window, and in so arranging a device of cords and pulleys that they may be easily operated with a key.

Similar letters of reference indicate corresponding parts.

Letter A, fig. 1, represents a window-frame.

Letter B, fig. 1, is a metal frame, of a size corresponding with the frame, and set in a rabbet from the outside of the frame.

Letters D, C, and D', are cross-pieces in the centre of the frame B, and forming a part of it.

The cross-pieces D D' and the end-pieces B of the frame B B' are slotted their entire length.

Letter F, fig. 1, is a vertical rod passing through the end and cross-pieces of the frame B.

Letters E E, fig. 1, are the blind-slats, of which there are four series in each window, one series in each quarter section. These slats have tenons at each end which fit in the slots in the cross-pieces B and D' D.

The slats E are joined by a thread, or cord, or chain at the tenons, in such manner as to allow them to be spread to cover the required surface, and leave a little "lap."

At fig. 2 the frame B B' is shown, and the pulleys M, L, R, K, and J, without showing the frame of the window.

The pulleys M and L are set in the upper corners of the frame A, and the pulleys S and R are set in the lower corners.

The pulley K is set in the main frame, and is provided with two grooves.

The pulley J is the same.

The pulleys J and K, fig. 2, have square holes through their centres for admitting the key H.

Letter z, fig. 2, is a plate fitted on the main frame, and provided with slots for guiding the cords e and f.

Letter H, fig. 3, is the key, formed square at the end entering the lock, and round, further back.

Letter m, fig. 3, is the small plate where the key enters the hole.

J and K, fig. 2, are the double-grooved pulleys, and A is a section of the frame.

The plate z carries a pin, d, which passes out as a key-post in rear of the key-hole, and the key H has a hole for passing on to said post. By sliding the key in the square part of it, n will be made to engage with the pulley J, and the round part of the key will revolve in the cam X. By sliding the key still further in the square part, n will engage with the pulley K, and the round part of the key will revolve in the pulley J and cam X.

The cord f, fig. 2, is passed twice around one of the grooves in the pulley K, and the other end passes around the pulley V. This cord f is attached to one side of the tenons on the end of slats E.

The cord g passes twice around the pulley K, then over the pulley L, thence alongside of tenons on slats E, thence around pulley N, and alongside of tenons of slats E, to which it is secured or fastened; thence over pulley M, and so on around.

It will now be seen from the drawings that if the key is slid through to reach the pulley K, by turning in the direction of the arrow h, fig. 2, the cords will be so drawn as to draw the slats E in upper right-hand corner of the window toward the centre of the window, and the cord t connecting the outside slat E with the frame B' will hold it, whilst the others are spread out to cover that quarter of the window, and by turning in the reverse direction, they may be brought back and folded in the side of the frame A, which position they are shown approaching at fig. 1.

The series of slats in the lower right-hand corner is arranged in the same manner, but is operated by the pulley J, into which the square part of the key H is slid for the purpose of operating them.

The tenons on the end of the slats E are made to one side of the centre, as shown, as they are found to operate better so constructed.

For the cords used throughout the device, chains of suitable kind may be substituted.

The slats E may be constructed of wood or any suitable metal.

Having thus described my invention,

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

The combination and arrangement of the driving-pulleys K and J, and their respective cords, the pulleys L and M, the shaft F, with its pulleys N V, W, and P, the slats E, and grooved pieces D C and D', when constructed and made to operate in the manner and for the purpose substantially as set forth.

JONES HARDING.

Witnesses:

W. B. RICHARDS,  
J. B. HARSH.