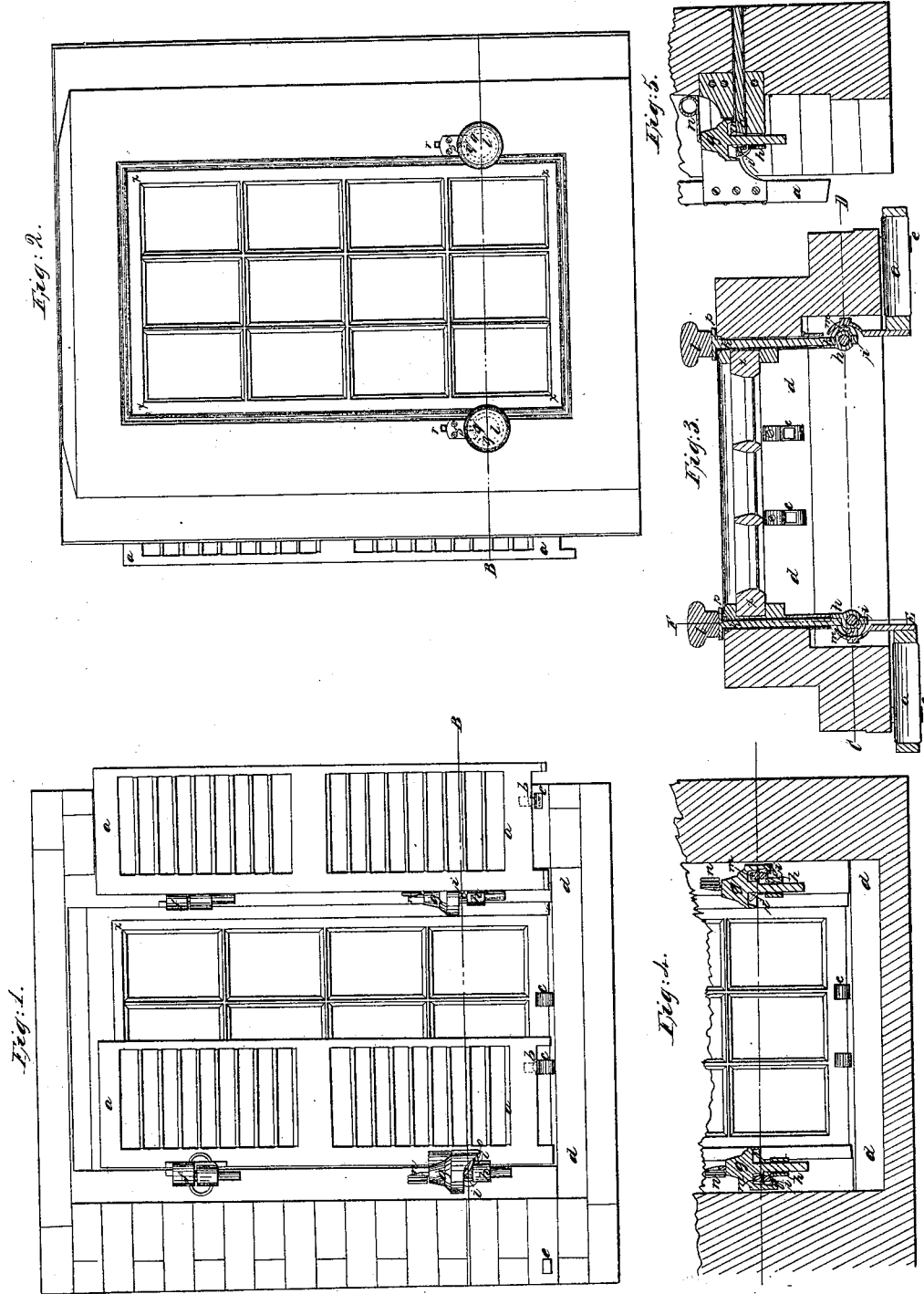


C. Reed,
Shutter Worker.

N^o 5683.

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UNITED STATES PATENT OFFICE.

CHENEY REED, OF CAMBRIDGE, MASSACHUSETTS.

HINGE AND FASTENING OF WINDOW-BLINDS.

Specification of Letters Patent No. 5,683, dated August 1, 1848.

To all whom it may concern:

Be it known that I, CHENEY REED, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in the Mode of Hanging and Fastening Blinds, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from others of a similar class, together with such parts or combinations as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1 is an elevation of the exterior of a window frame with blinds arranged thereon according to my improved mode, one blind being shut and the other open. Fig. 2 is an elevation of the interior of the same. Fig. 3 is a horizontal section taken in the plane of the line A—B, Figs. 1 and 2. Fig. 4 is a detail vertical section taken in the plane of the line C—D, Fig. 3, and Fig. 5 is a detail transverse vertical section taken in the plane of the line E—F, Fig. 3.

The blinds *aa—aa* are of the ordinary kind and have let into the underside of the bottom rail a small loose bolt *bb*, Fig. 1, which moves freely up and down and engages with the slots in the catches *c, c*, on the sill *d, d* of the window frame when the blinds are closed, and with similar slots in catches *e, e*, secured to the face of the building when the blinds are open. The sash *x, x, x, x*, is represented as whole in the frame to show the effectual working of my apparatus.

In hanging blinds, it has long been desired by housewrights to devise some means by which, when closed, they may be opened, and vice versa, without opening the sash of the window, which in cold or stormy weather involves considerable exposure on the part of the inmates of the house. Various plans or mechanical arrangements have been resorted to for securing the result above suggested, but the operation of all of them has been very imperfect and ineffectual. By my improved arrangement the blinds may be easily opened and shut from the interior of the apartment without opening the window, and the distinguishing feature of my said arrangement consists in so supporting the

blinds at the lower hinge on what I denominate a shifting or tilting or reversible circular inclined plane that they may be raised on their bearings, and through the medium of a friction roller (resting on said inclined plane, as explained in the sequel) turn either way by their own weight.

The upper hinges *f, f* may be of the ordinary construction and shaped as shown in Fig. 1, saving that the half of the hinge containing the stape is attached to the blind, and that containing the socket to the window frame instead of the opposite way, which is the usual plan. The same arrangement also exists in my improvements in the lower hinges *g—h g—h*, and the upper parts *g—g*, are made into hollow caps, so to speak, so as to protect the operative parts of the apparatus from rust, occasioned by rain, etc. The circular tilting planes *ii—ii* are arranged between the two parts *g—h* of the lower hinges, as shown in figs. 1, 4, and 5, and are attached to the ends of rods *kk—kk* which extend through the window frame into the interior of the apartment, as shown in Figs. 3 and 5, having knobs *ll* on their inner ends, by which the said inclined planes *ii—ii* may be turned from an angle of about 45 degrees (to the side of the window frame) in one direction, to a similar angle in the other or opposite direction. There is a hole in the tilting planes *ii—ii* through which the staple of the lower hinge passes into the socket *h, h* and on the top of this socket *h* the bearings of the said tilting planes rest and turn, as shown in Figs. 4 and 5. In the interior of each of the caps *g—g* a friction roller *m—m* is arranged, (see Figs. 3, 4, 5,) so as to revolve freely and run on the tilting planes *ii—ii* and when said tilting planes are turned into the angular positions herein above described, (by applying the hand to the knobs *ll* in the interior of the apartment,) the said rollers will run down said planes, and (being connected as described to the caps *g—g*, and said caps being attached to the blinds *a a*) the said blinds will be carried by their own weight around one hundred and eighty degrees in either direction as the case may require. When the wind is high the weight of the blinds may not be sufficient to carry them around, and I therefore apply an additional force on the top of the caps *gg*, by means of a spring *nn*, Figs. 1 and 5, (or any mechanical equivalents,) one end of which spring is fastened

to the exterior of the window frame, while the other presses on the top of the caps, as before suggested.

I make provision for fastening the blinds when in an open or closed position as follows: Just beneath the friction rollers *m—m* is a horizontal stud *o—o* which is cast on the interior of the caps *g—g*, as shown in Figs. 1 and 4, so as to project out underneath the tilting planes *ii—ii*, and when said planes are confined in either of the positions in which they are when the blinds are opened or shut it will be seen that the blinds cannot be lifted in their bearings. The confinement of the said planes is effected by the following arrangement of mechanical devices: A circular metallic collar *p, p*, Fig. 2, is fixed on each rod *k k—k k* of said planes in the interior of the apartment and between the knobs *l l* and the inside of the window frame, as shown in Fig. 5. In this collar two notches *q—q*, *q—q* (shown by dotted lines in Fig. 2) are formed at a proper distance from each other and into these notches, a sliding bolt *rr* (moving up and down in grooves in the blocks *s, s*) drops and fits when the blinds are opened or closed, and in combination with the studs *o—o* fasten the blinds in a manner which will be readily understood by what has been said herein above.

It will be evident from inspection of the drawings that in lieu of combining the op-

erative apparatus of my invention with the lower hinge, as above described, the said apparatus may be used with blinds hung in the ordinary way, the tilting or reversible, inclined, circular planes, and their necessary appendages above referred to being arranged between the upper and lower hinges, substantially as hereinabove set forth.

Having thus described my improvements, I shall state my claims as follows:

What I claim as my invention and desire to have secured to me by Letters Patent, is—

The improvement hereinabove described, in hanging blinds so that they may be opened or closed without raising the window viz., by supporting them on a tilting or reversible circular or other shaped inclined plane, fixed on the end of a turning rod, *k k*, said plane and rod being operated or tilted from the interior of the apartment, substantially as hereinabove set forth, a friction roller being connected to the blind as above set forth, and running on said plane, as above explained.

In testimony that the foregoing is a true description of my said improvements and invention I have hereto set my signature this twenty-sixth day of Jan., A. D. 1848.

CHENEY REED.

Witnesses:

ESRA LINCOLN, Jr.,
LUTHER BRIGGS, Jr.