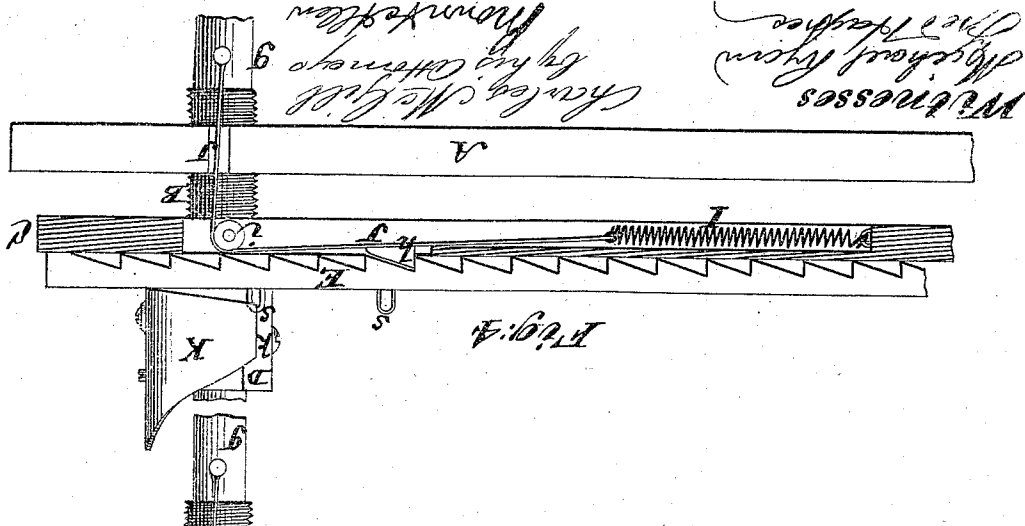
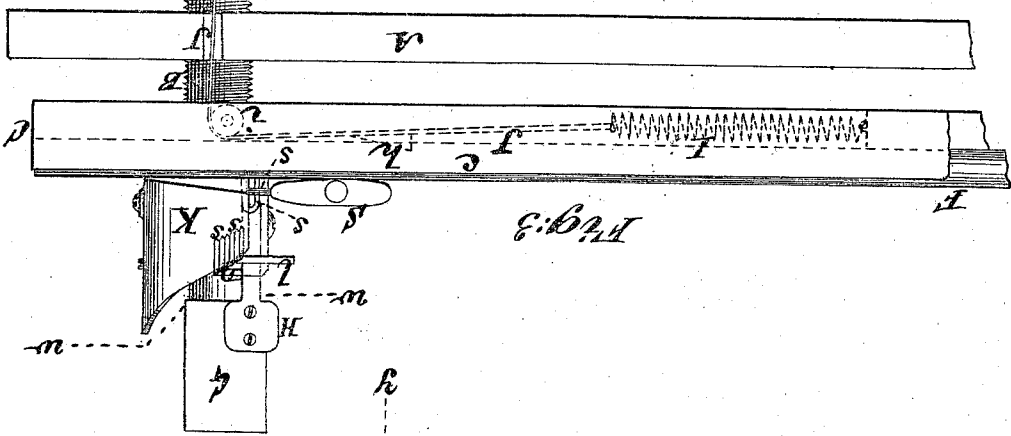
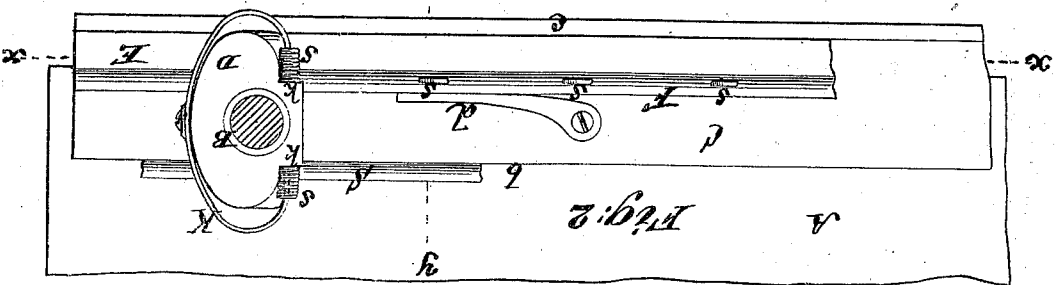
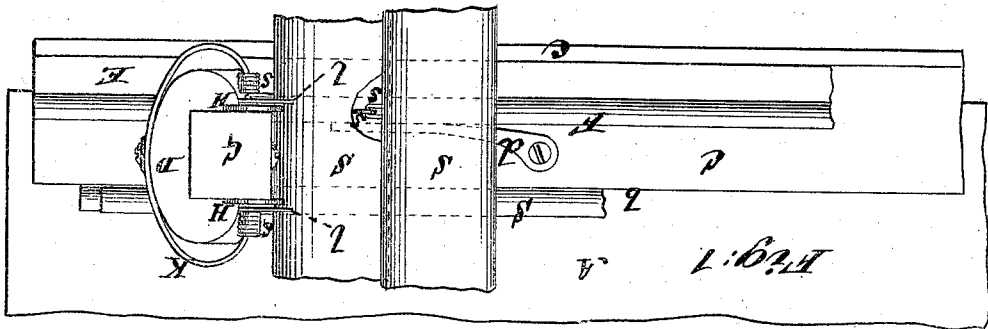




Witnesses
Michael Ryan
Charles McGill
by his attorney
Monte Allen

C. MCGILL.

Machines for Wiring Blinds.

Patented Oct. 7, 1873.

No. 143,521.

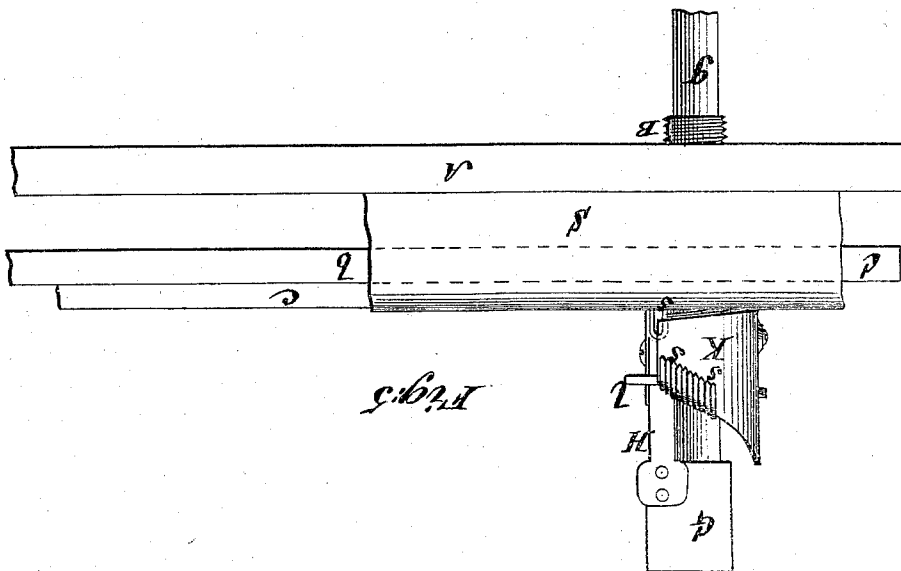


Fig. 5

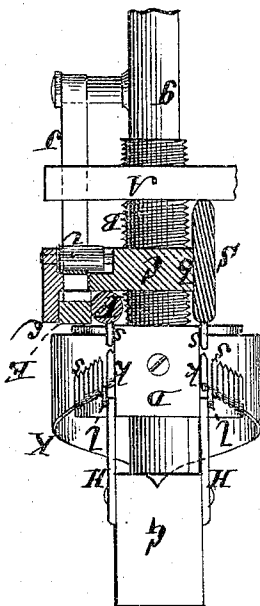


Fig. 6

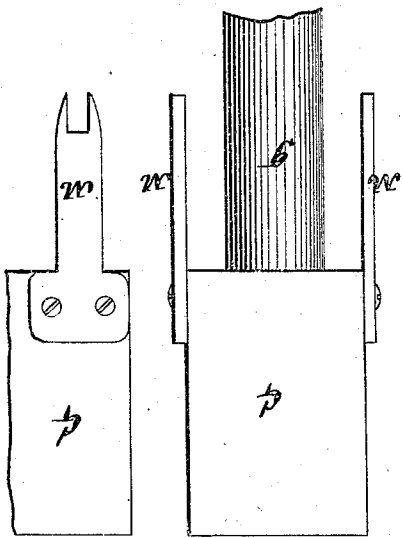


Fig. 7

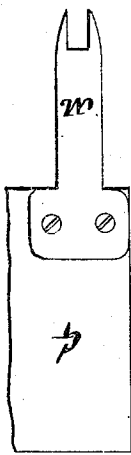


Fig. 8

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UNITED STATES PATENT OFFICE.

CHARLES MCGILL, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN MACHINES FOR WIRING BLINDS.

Specification forming part of Letters Patent No. **143,521**, dated October 7, 1873; application filed August 21, 1873.

To all whom it may concern:

Be it known that I, CHARLES MCGILL, of the city and county of New Haven and State of Connecticut, have invented certain Improvements in Machines for Wiring Blinds, of which the following is a specification:

This invention relates to machines for wiring Venetian blinds; and consists in various novel details and combinations of parts, including a screw for holding the machine to the bench and the table to its place, likewise a double spring wire or staple feeder, and spring and cord for feeding the blind-rod and operating the machine, whereby the one machine serves to wire both the rod and slats of the blind, and numerous advantages and facilities are obtained.

In the accompanying drawing, Figure 1 represents a plan of the machine, with a blind-rod and slats in the act of being wired and secured the one to the other; Fig. 2, a sectional plan thereof on the line *w w*; Fig. 3, a side view of the same; Fig. 4, a longitudinal vertical section on the line *x x*; Fig. 5, an opposite side view to that shown in Fig. 3; Fig. 6, a vertical transverse section on the line *y y*; and Figs. 7 and 8, front and side views of the follower of the machine, with prickers attached for puncturing holes in the rod and slats of the blind to facilitate the entry of the wires.

Similar letters of reference indicate corresponding parts.

A represents the bench, on or above which the machine is supported by a hollow screw, B, that not only fits a female thread in the bench, but also in the table C of the machine, and which has attached to its upper end a head-block, D. This head-block and the bench A form the guiding or holding surfaces for the edges of each slat when having the wire inserted in it, and the edge *b* of the table C a guiding-surface for the face of the slat. The other edge of the table has a ledge, *c*, which acts as a guide to the rack E that carries the blind-rod F, said rod and rack being guided between the ledge *c*, a spring-rest, *d*, the upper surface of the table C, and the bottom of the head-block D, on the opposite side of the screw B, to which the slat, when having the wire driven into it, is arranged. G is the follower, carrying the staple-drivers H H, that simulta-

neously force the wires or staples into the rod and slats of the blind. Said follower has its stem *g* arranged to project down through the screw B, and may be operated as regards its descent by a treadle attached to the stem *g*. It is moved upward and returned to its place, ready for a succeeding down or driving stroke, by the same spring, I, which serves to feed the blind-rod, by means of the rack E, the necessary distance, after the wiring of one slat to the rod, for the wiring of a succeeding slat thereto. This double use of the spring I is effected by means of an attached cord or strap, J, carrying a pawl or dog, *k*, for gearing with the rack E, and which cord, after passing over a pulley, *i*, is attached to the stem *g* of the follower. Secured to the back of the head-block D is a double spring-feeder, K, for the wires or staples *s*, both to the rod F and slats S of the blind, said feeder being composed of a plate bent to embrace, in a free or loose manner, the sides of the head-block, with its free front ends resting against parallel shoulders or surfaces *k k* in the front portion of the head-block, and in contact with which shoulders or surfaces the drivers H H work to project a staple or wire from off each forward end of the feeder—that is, one into the blind-rod, and one into a detached slat—at the same time, the ends of the feeder springing to allow of the passage of said staples, and serving to hold or guide the staples when entering the wood. The upper edge of this double spring-feeder is made inclining downwardly toward the front of the head-block, on both sides of the latter, to provide for the automatic feed of the wires or staples *s* to the drivers H H, by the sliding of the staples, which are made to straddle the two inclined upper edges of the feeder, down the latter. Stationary cut-offs *l*, arranged to project from front of the head-block outside of the drivers H H, but in close proximity to them and to the upper edge of the feeder K, serve to cut off or prevent more than two staples—that is, one staple from each side of the head-block—from passing to the followers H H.

In the operation of the machine, it is first necessary to enter, by hand or otherwise, a staple at its proper place in one of the slats S, and then, when the rod F is in its place on the

table, to lay said wired slat across the table, on top of the blind-rod, and up against the head-block D, as represented in Fig. 1, to receive the staple being inserted in the rod F through, or so as to interlock with, the staple of said slat, a staple at the same time being inserted into another slat, S, resting with its edge on the bench A, as represented in Figs. 1, 2, 5, and 6, which slat is, in its turn, placed on its face across the table C, to interlock with another staple of the blind-rod F, and so on in continuous succession, until said rod has all its slats secured to it, the machine each down-stroke inserting a staple in the rod through a staple in a slat, and simultaneously inserting a staple in another slat, ready for attachment to the rod as the latter is fed by the dog *h*.

When the blind is made of hard wood, or whenever it is necessary to first puncture the wood to facilitate the insertion of the staples, the drivers H H are temporarily removed, and prickers or punches M M, Figs. 7 and 8, attached in their place to the follower G, and the slats and rod pierced by the machine before wiring them, as hereinbefore described.

To adjust the machine to different widths of slats S and thicknesses of rods F, it is only necessary to turn the screw B, with or without other parts. Thus, to adjust the machine to different thicknesses of rod F, the screw B, with its attached head-block D and accompanying parts, has one or more whole turns

given it, but the table C is kept stationary. By turning said parts in common with the table C, provision is made for adjusting the machine to different widths of slats resting with their edge upon the table, as in Fig. 6.

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

1. The combination of the screw B with the bench A and table C of the machine, substantially as specified, whereby the machine is held to the bench, and provision made for adjusting it to suit different thicknesses of rods and widths of slats, as herein set forth.

2. The combination of the hollow screw B with the follower G, the stem *g*, the bench A, and the table C, essentially as shown and described.

3. The double spring staple-feeder K, in combination with the head-block D, provided with the shoulders *k k*, and the follower G, with its attached pair of drivers H H, substantially as specified.

4. The combination of the spring I, the band or cord J, and guide or pulley *i* with the dog or pawl *h* and stem *g* of the follower, whereby the same spring operates to feed the rack E and to return or lift the follower with its attached drivers H H, substantially as specified.

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