P. Barry,

Wiring Blinds.

No. 64,935. Patented May 21, 1867.

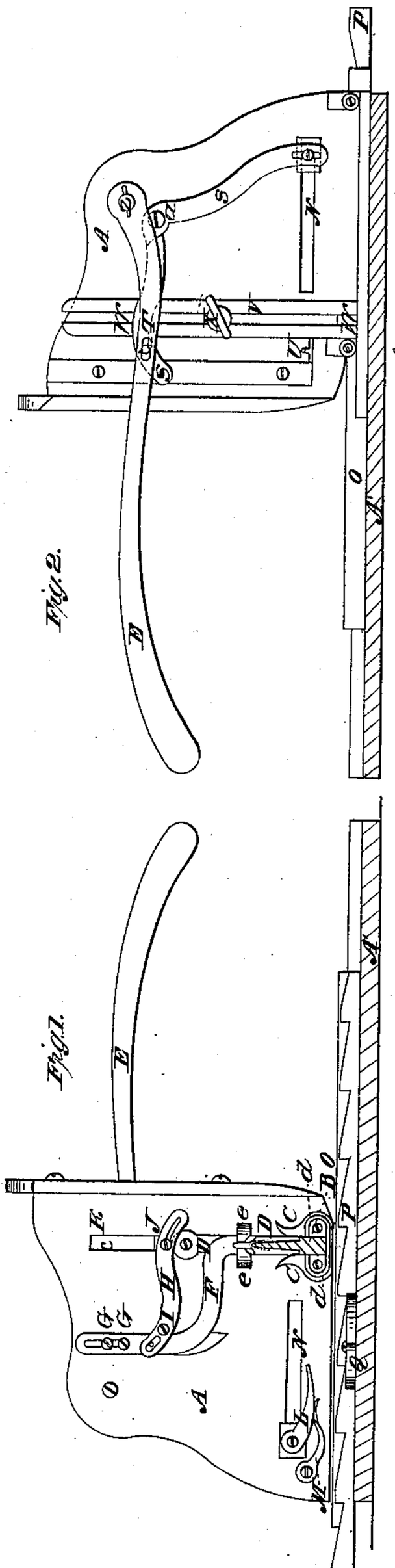

Fig. 2.

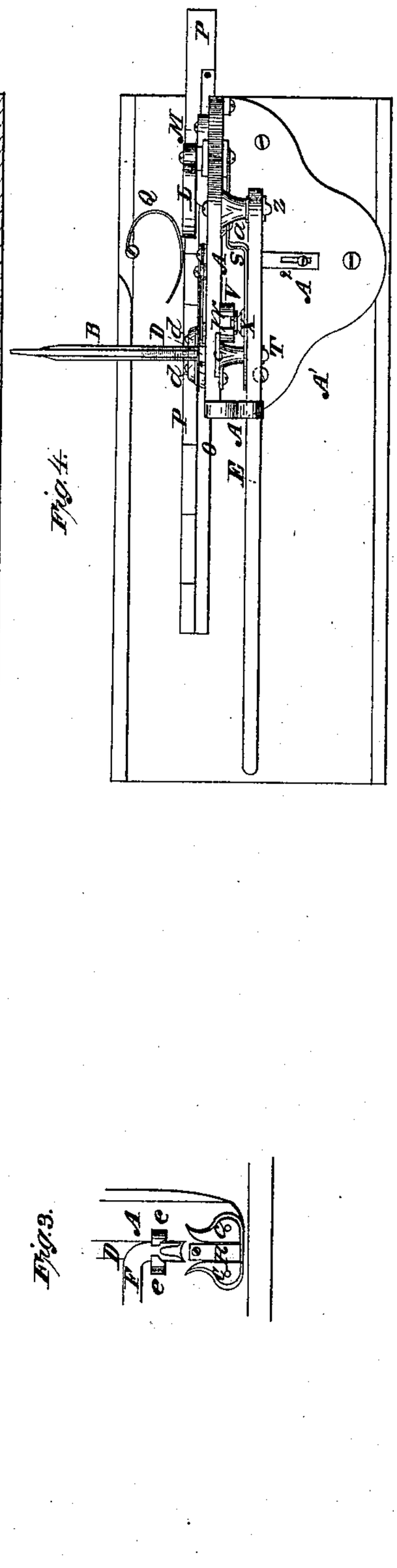

Fig. 4.

Fig. 1.

Fig. 3.

Witnesses:
Geo. J. Southern
Gustav Berg

Inventor:
P. Barry
By Van Santvoord & Hauff
his attys.

United States Patent Office.

PETER BARRY, OF NEWARK, NEW JERSEY.

Letters Patent No. 64,935, *dated May* 21, 1867.

IMPROVEMENT IN MACHINES FOR WIRING BLIND-SLATS.

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, PETER BARRY, of Newark, in the county of Essex, in the State of New Jersey, have invented a new and useful Improvement in Blind-Wiring Machines; and I hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which drawing—

Figure 1 is a front elevation of a machine that contains my improvement.

Figure 2 is a rear elevation.

Figure 3 is a detail of the feeding mouth of the machine, showing the spring, the cut-off, and the plunger.

Figure 4 is a plan view.

This invention relates to machines for wiring slats, stiles, and other parts of blinds or other articles, and it embraces a cut-off, which prevents more than one staple being placed beneath the plunger at the same time, and other novel features which are hereinafter described.

The letter A designates a vertical frame, which carries the main operative parts of the machine. Said frame in its lower position rests upon a bed-plate, A^2, from which rises a vertical slotted guide, V, to which the frame A is secured by means of a clamping-screw, X, one or more of which may be used for this purpose. The frame is kept straight with respect to the guide by means also of projections W W, which enter the slot of the guide and cause the frame to remain in the same vertical plane, when placed in higher or lower positions on the guide, to suit work of different thicknesses. The bed-plate A^2 rests on a table, A^1, near whose front edge is placed a spring, Q, that presses the work or stuff to be "wired" against the front edge of said bed-plate, whose front part is made adjustable in the direction of the spring by means of a tongue and slot, as indicated at *b* on said bed-plate in fig. 4. The letter O designates a "stile" or blind-rod, and P is a notched feeding rack or bar, whose rear end is made with a shoulder, as shown in fig. 4, which abuts against the rear end of the blind-rod and carries it along beneath the plunger, the blind-rod or other article which is to be wired being next the bed-plate A^2, and the spring Q being allowed to bear against the notched bar, to crowd the latter against the rod. The necessary forward step by step movement of the feeding-bar and blind-rod is effected by means of a pawl, I, which reciprocates in a horizontal slot in the frame A. Behind the lower rear corner of said slot is an adjustable shoe, M, secured to the face of the frame by a set-screw, for the purpose of regulating the feed by throwing up the pawl I, and holding it up and above the notched bar, so as to prevent its engagement therewith during the earlier part of the forward movement of the pawl. The object of this arrangement is to effect the movement of the blind-rod at each reciprocation of the pawl for only the distance the staples are required to be apart from each other, and by lifting the pawl and holding it up until it comes near to the proper notch, the movement of the notched bar is regulated without limiting or altering the extent of the reciprocation of the pawl itself. The pawl L is moved by means of a bent lever, S, pivoted at *a* to the back of the frame, through the agency of a head or block which slides in the slot N, to opposite sides of which head or block the pawl and the lever are connected, the connection of the said lever being by means of a pin which works in a slot in the lever, as shown in fig. 2. The upper end of the bent lever S is connected to the hand-lever E, which in this example is made the means of operating the mechanism by means of a pin which extends from the slide *c* going through lever S, and working in a slot in said hand-lever. The said hand-lever is pivoted to the frame at the point Z. The slide *c* moves between vertical guides formed in the frame A, and its lower end is arrested by a stop, U, which projects from the solid part of the frame, so as to limit its downward movement. The letter D designates the plunger which drives the wires or staples. It is attached to the slide *c* by means of a head or block which projects from the slide and works in a vertical slot, K, made in the frame. The plunger D is directly above a feeding mouth for feeding the wires or staples, which mouth is formed by the front of the frame in combination with the lateral blocks C C and the rigid guide strip B, which latter is fastened to the faces of the blocks C C by means of ears J J that project laterally from the foot of the strip and receive screws which fasten them to the blocks. Additional means may also be employed to secure the strip to the machine and keep it in an unyielding condition. The upper edge of the strip inclines towards frame A, and its lower end is curved to allow the wires or staples, which in practice are placed astraddle of the strip, as shown in the drawing, to slide easily off the strip and enter the mouth or space formed below the plunger as above stated. The size of

said mouth or space is arranged to suit the size of the wires or staples used in the operation, and in the said mouth I place an elastic plate, R, which is in this example secured to the frame in such a way that its lower part springs across the lower part of the feed-mouth and arrests the wire or staple in its descent after leaving the guide strip. The staples are strung upon the edge of the guide strip and allowed to descend by gravity towards the feed-mouth, being arrested near the end of the guide strip B by a cut-off, F, consisting of a lever of curved shape, whose upper end is slotted to receive pins G G, which go through the slot into the frame, and serve to guide the movements of the cut-off. The lower end of the cut-off is so bent as to come before the plunger D, going between guides *e e*, which guide it so that it operates with accuracy in conjunction with the guide strip B, the bottom of the said cut-off being bifurcated, so as to fit on the upper edge of the said strip and enable it to interpose between the lowermost staple and those above it, so as to arrest the latter and allow only the former to leave the strip and descend into the feed-mouth. The movements of the cut-off are accomplished by means of the reciprocations of the slide *c* through the horizontal lever H, which is pivoted to the frame at a point, I, near to said cut-off lever, and connected both to the said slide *c* and to the cut-off F by pins going through slots in the ends of said lever H. The movements of the plunger D and cut-off F are so timed that the cut-off is up when the plunger is down, thereby allowing one of the staples to slide on the guide strip downwards against the face of the plunger while the latter is descending towards the stile or rod O. At the next movement of the hand-lever E the plunger is lifted, and while it is ascending the cut-off descends and cuts off the said staple from those above it, and allows it alone to slide off the guide strip into the feed-mouth. The distance to which the staple descends is determined by the position of the elastic or spring-plate R, the distance being great enough to bring the back of the staple fully below the bottom of the plunger, so that the latter can come squarely upon it in order to drive it into the stile or rod O beneath, the spring-plate R being pressed out of the way to allow the staple and plunger to descend beside it. At each elevation of the plunger the feeding-bar or rack P and the stile or rod O are moved along the proper distance to receive a fresh staple.

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

1. The independent cut-off F, arranged to operate upon the staples by coming between them from above, substantially as described.

2. I also claim the independent cut-off in combination with the guides *e e*, which guide its free end to the guide strip B, substantially as shown.

3. I also claim the combination of the elbow-lever S, the slot N, the pawl L, and the adjusting-shoe M, substantially as shown.

4. I also claim in combination the feeding-pawl L, the adjusting-shoe M, and the feeding-bar or rack P, substantially as shown.

5. I also claim the application of a spring-plate, R, to the feeding-mouth or space below the plunger, when arranged and combined with a rigid or unyielding guide strip B, substantially as set forth.

PETER BARRY.

Witnesses:

WALTER FROST,

WILLIAM CAREY.