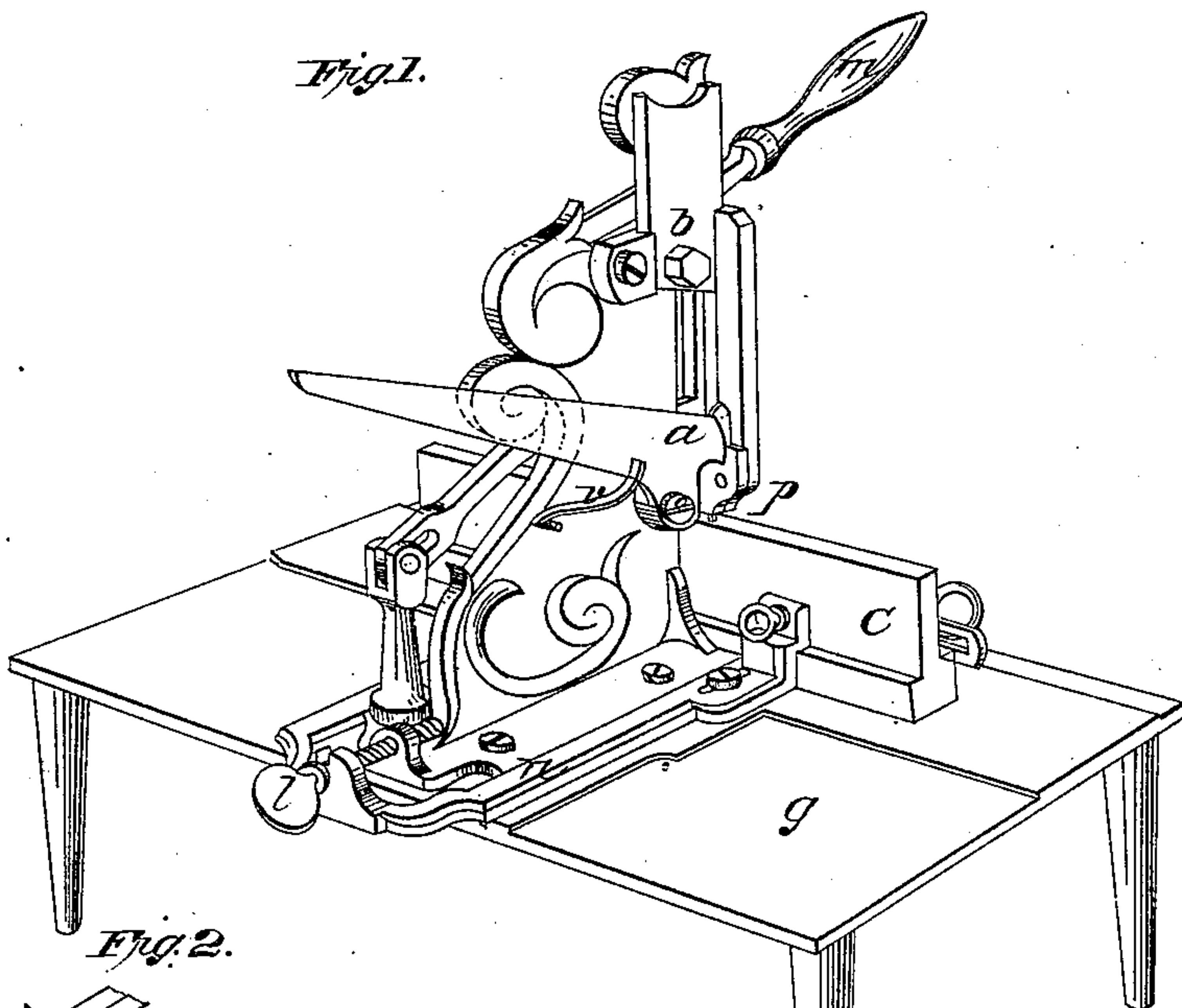
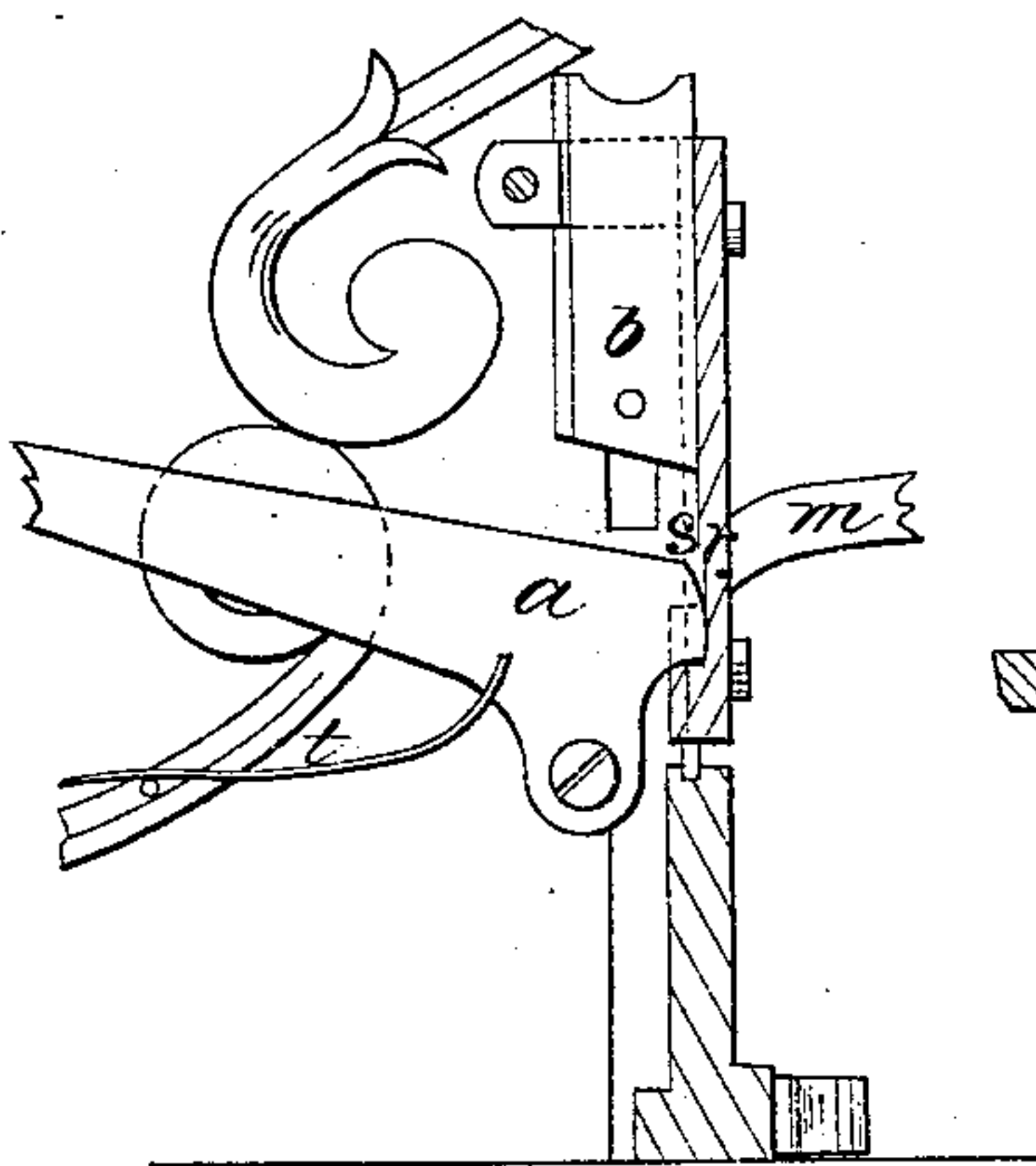


*Orton & Doane,*  
*Wiring Blinds.*  
*N<sup>o</sup> 81,103. Patented Aug. 18, 1868*

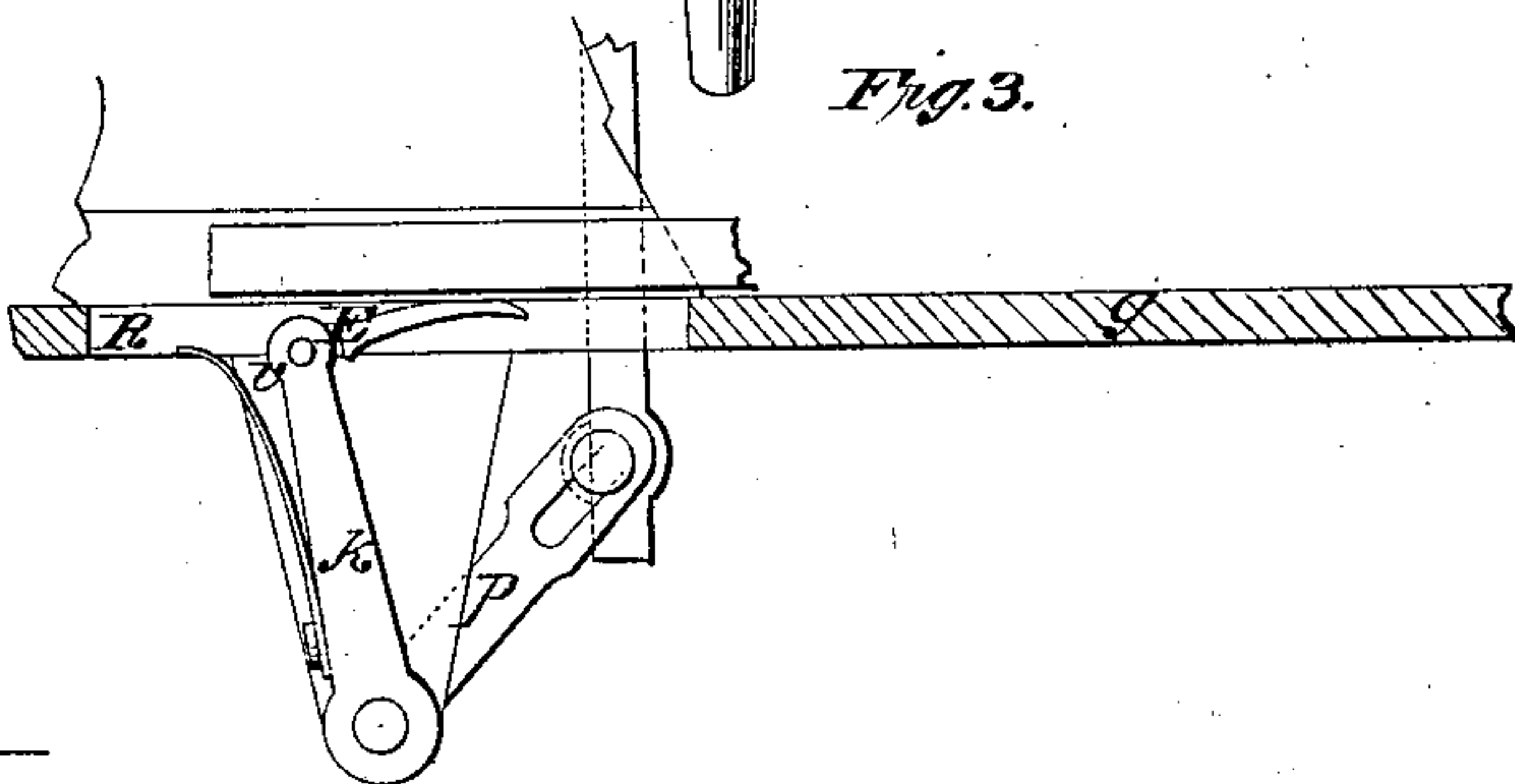
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses:*  
*E. R. Hyde.*  
*Davidson.*

*Inventor:*  
*A. V. Orton.*  
*H. H. Doane.*

# United States Patent Office.

GERRIT V. ORTON AND WILLIAM H. DOANE, OF CINCINNATI, OHIO.

*Letters Patent No. 81,103, dated August 18, 1868.*

## 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 we, GERRIT V. ORTON and WILLIAM H. DOANE, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Machines for Driving and Setting Staples in Blind-Slats and Rods; and we hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective elevation of a machine complete with our improvement.

Figure 2 a sectional elevation, showing the arrangement of the feed-bar *a*, and

Figure 3 a section through the table, showing the manner of operating the feed or spacing-pawl *E*.

This machine is used for setting staples, and bears in its general arrangement an analogy to machines before used for the same purpose.

Our improvements consist in several improvements in the details, as will be hereinafter described, the object being to facilitate as well as to insure perfect work.

The nature of this invention consists, first, in so pivoting the feed-bar *a* that the outer end will be depressed by the downward motion of the driver *b*, the pivot-point being so located that the feed-arm or bar *a* will assume a greater inclination at the time of discharging each staple, as hereinafter explained; and secondly, in the hinged reversible pawl *E*, operating as hereinafter explained.

In machines hitherto used for this purpose, the inclined bar *a* has been set at an inclination sufficiently great for the staples to slide down to the driver *b* by their gravity, the bar being positively fixed in its position, or it has, in some cases, been arranged with an end motion to facilitate the delivery of the staples. In the machine illustrated, the feed-bar *a* has an oscillating motion on the screw-pivot *o*. It will also be observed that the outer end of the feed-arm *a* is depressed by the action of the driver *b* after discharging a staple, and, upon being relieved by raising the driver, is thrown up into a position sufficiently inclined to allow the staples to move down by their gravity, ready for another motion of the driver *b*; this longitudinal motion, inasmuch as it retards or facilitates the escape of the staples at the proper time, and insures a perfect feed, so operates that a single staple is fed at each motion of the machine, without any chance of failure.

The pawl-feed, for spacing, has hitherto been placed on the top or side of the carrier-bar *C*, and exposed in operating.

To enable others skilled in the art to make and use our invention, we will proceed to describe the manner of constructing and operating the same, with the aid of the drawings.

*g* is a flat table, on which the machine is mounted, and in this case, where the machine is arranged to be operated by a hand-lever, *m*, is intended to stand upon a bench. The same table can, however, be mounted on a pedestal and operated by a treadle.

The carrier-bar *C*, for driving staples into the slats, is screwed fast to the movable frame *n*, and forms a fence or guard, adjusted by screw *l*, on the front of this piece. On a suitable rebated projection the slat is placed and adjusted by suitable stops. The staples are placed upon the feed-bar *a*, the front end of which is so shaped at *S*, fig. 2, that it leaves a V-shaped recess, into which the first staple passes and is caught by the shoulder *t* on the driver *b*, and forced down into the slat or rod.

In raising the lever *m*, the driver *b* is brought into the position shown, and during its upward motion the feed-bar *a* drops suddenly off at the slight projection or shoulder at *r*, fig. 2, and is thrown up with a slight concussion by the spring *t*, throwing it into position, disengaging another staple, which falls into the V-notch at *S*, fig. 2.

In wiring or stapling slats, the feed-pawl or spacing-device, shown at *e k p*, fig. 3, is not used, the pawl *E* being thrown back in the position shown in the drawing.

To wire the rod, or the slats to the rod, a rod is placed in a carrier similar to *C*, with a ratchet formed on the under side, with spaces formed to correspond with the width of the slat.

The pawl *E* is thrown over in a reverse position from the drawing, and catches into the ratchet on the bottom of the carrier *C*, and moving one space at each motion of the machine.

The spring  $b$  keeps the pawl  $E$  in contact with the rack on  $C$ , and insures its action.

The spring  $b$  keeps the inclined feed-bar  $a$  in position, and provides the motion of the bar, as before described.

Having thus described the nature of our invention, what we claim, and desire to secure by Letters Patent, is—

The feed-bar  $a$ , when so pivoted and arranged that it will be depressed by the action of the driver  $b$ , substantially in the manner and for the purposes herein set forth.

G. V. ORTON,  
WM. H. DOANE.

Witnesses:

W. E. LONDON,

W. S. KELLEY.