J. M. Seymour

Spacing & Boring-Machine.

No. 74724 Patented Feb. 18, 1868.

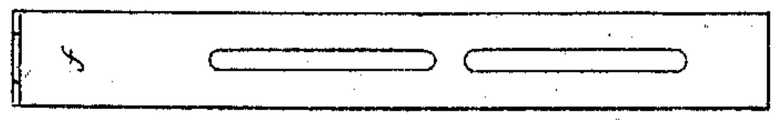
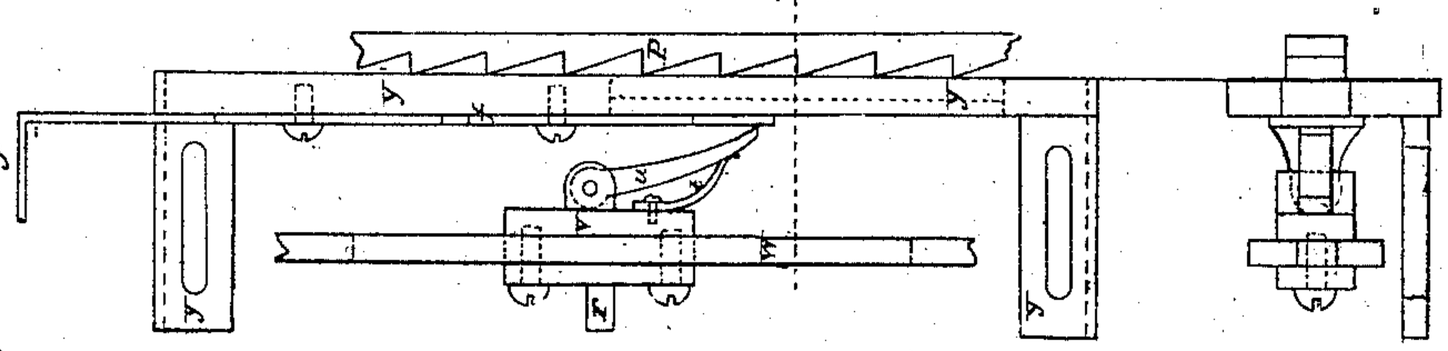


Fig. 4.



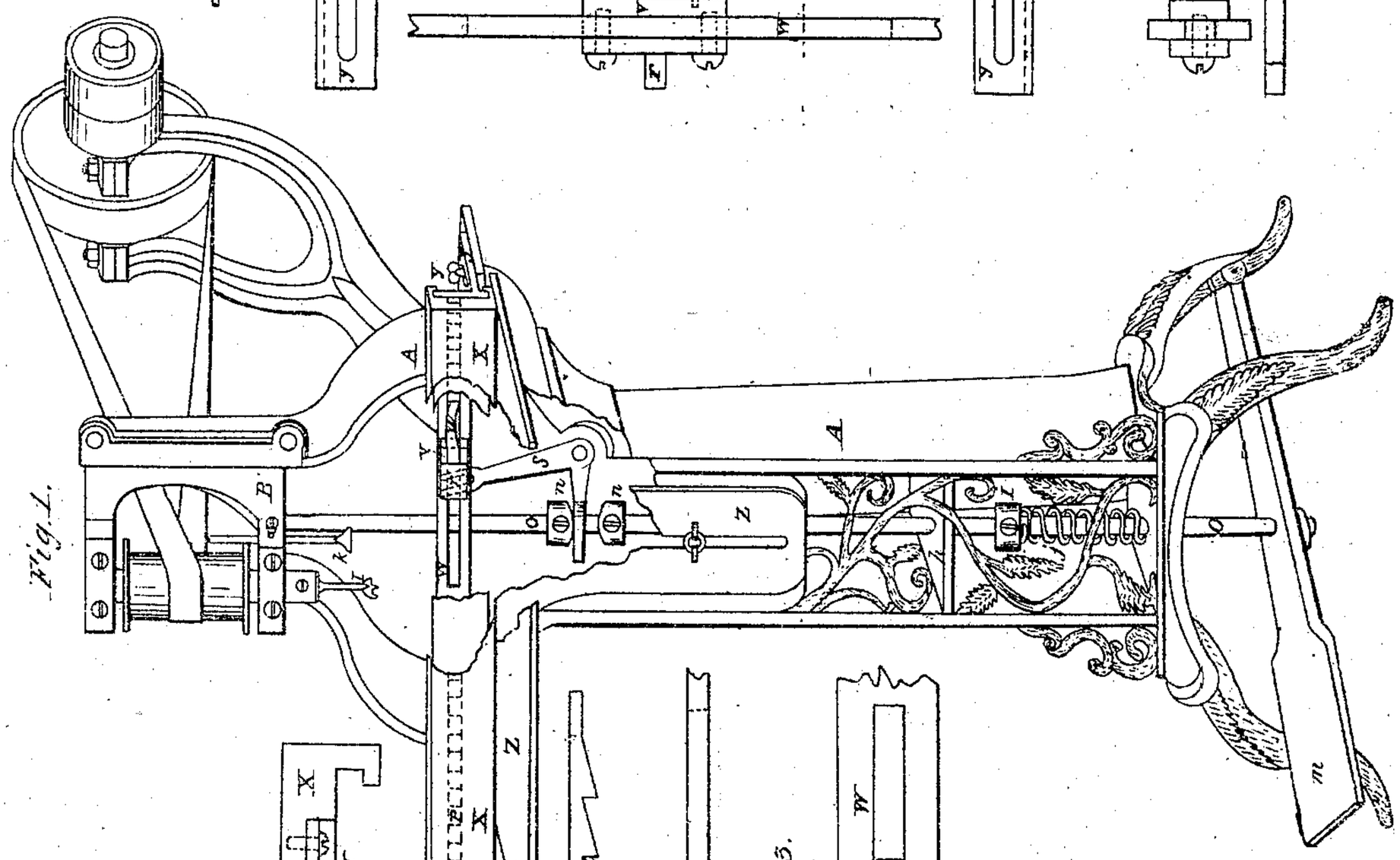


Fig. 1.

Fig. 2.

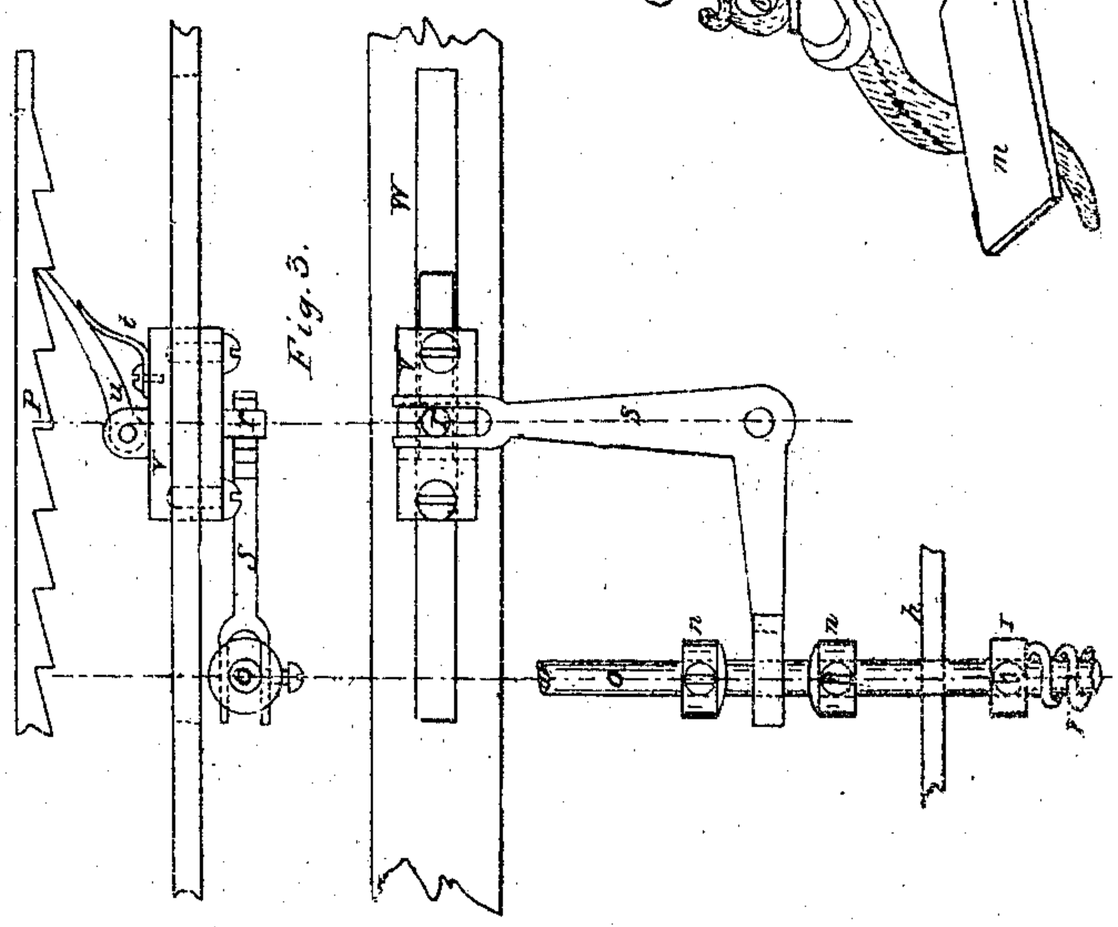


Fig. 3.

Witnesses
F. M. Gooding
Jacob Ketchum

Inventor
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United States Patent Office.

JAMES M. SEYMOUR, OF NEWARK, NEW JERSEY.

Letters Patent No. 74,724, *dated February* 18, 1868.

IMPROVEMENT IN SPACING AND BORING-MACHINES.

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, JAMES M. SEYMOUR, of the city of Newark, in the county of Essex, and State of New Jersey, have made certain Improvements in Spacing and Boring-Machines; and I do hereby declare the following to be a full and exact description of the same, reference being herein had to the drawings that accompany this specification as part of the same.

The nature of my improvement consists in a provision for boring holes in blind-stiles, or in any stuff that requires holes at regular or irregular distances, which, when properly set, requires no further attention as to distancing the holes from the operator. In the drawings—

Figure 1 is the complete machine, with some of its front removed to show the parts behind.

Figure 2 is a part of the sliding notch-stick and its holder.

Figure 3 is a bell-crank and its connections; and

Figure 4 the sliding gauge or pawl-lifter.

The same letters refer to the same parts in each figure.

Upon the front of the machine is the usual adjustable table *z*, upon which the piece to be bored is placed. The end of the common adjustable fence for regulating the distances of the holes from the edge of the piece to be bored is shown at *y*, and a top view of the same at *y*, fig. 4. A slide, *x*, is fitted so as to move freely upon the fence *y*, in the inside of which slide there is a groove to receive a notched stick, *p*. A slot is made through the fence *y*, in the part shown by the dotted line in fig. 4. Behind the fence *y*, attached to the main frame A of the machine, is a slotted bar, W, in which a slide, *v*, moves easily, carrying a pawl, *u*, and spring *t*. A bell-crank, *s*, takes hold of the pin *r* on the back of the slide *v*. The bell-crank is connected with the rod *o* by a crotch or slot, through which the rod passes. Above and below the arms of the bell-crank, upon the rod *o*, are collars *n n*, adjustable by set-screws. The lower end of the rod *o* is attached to a treadle, *m*, and the upper end to the sliding head B, in which are the boring-bit *l* and the stop *k*. A spiral spring, J, carries up the rod and head after being forced down by the treadle. A stop, *i*, is put between the top of the spring J and the bar *h* in the main frame A. This stop being a collar movable upon the rod *o*, can, by its set-screw, be placed so as to allow more or less rise of the sliding head B and of the bell-crank *s*. It will be seen that by depressing the treadle, the slide *v*, with pawl *u* and spring *t*, is by the bell-crank drawn back, so that the pawl catches a notch in the stick *p*, which upon release of the lever moves forward just as far as the stop *i* will admit, the space between the collars *n n* being so adjusted that the boring-bit *l* shall have time to clear the piece bored, before the notched stick *p* and the slide *x* commence moving forward. The stile or piece to be bored is held by the hand against the face of the slide *x*, with its end against the pin *g*, and its bottom close down upon the table *z*. The pawl *u* passes through the fence *y* to the notched stick *p*. To the back of the fence *y*, a sliding gauge, *f*, is attached, which is operated by hand. When passed forward to its extreme it lifts the pawl *u* out of the notched stick, and allows the stick and slide to return back freely upon the fence, and can be made available for the purpose of lifting the pawl out of longer or shorter notches, as may be required.

Of the right to this, as used in the machine for wiring blind-laths, I am administrator and owner, in the right of the patentee, (deceased,) T. R. Crossby, of Newark.

I am aware of the use of the stationary notched stick for boring purposes; and also of the movable notched stick for wiring window-blinds.

What I claim, and desire to secure, is—

1. The combination of the bell-crank *s* for moving the slide *x*, and the adjustable stops *n n* and *i*, so arranged that the action of said crank shall move the slide as soon as the bit is raised out of the wood, when operated substantially in the manner set forth.

2. The arrangement of the fence *y*, slide *x*, and removable notched stick *p*, and reciprocating pawl *u*, constructed and operated substantially as and for the purpose set forth.

JAMES M. SEYMOUR.

Witnesses:

W. M. GOODING,

JOSIAH HITCHCOCK.