

F. J. Seymour
Uyner Machine.

N^o 4,239.

Patented Jan. 12, 1864.

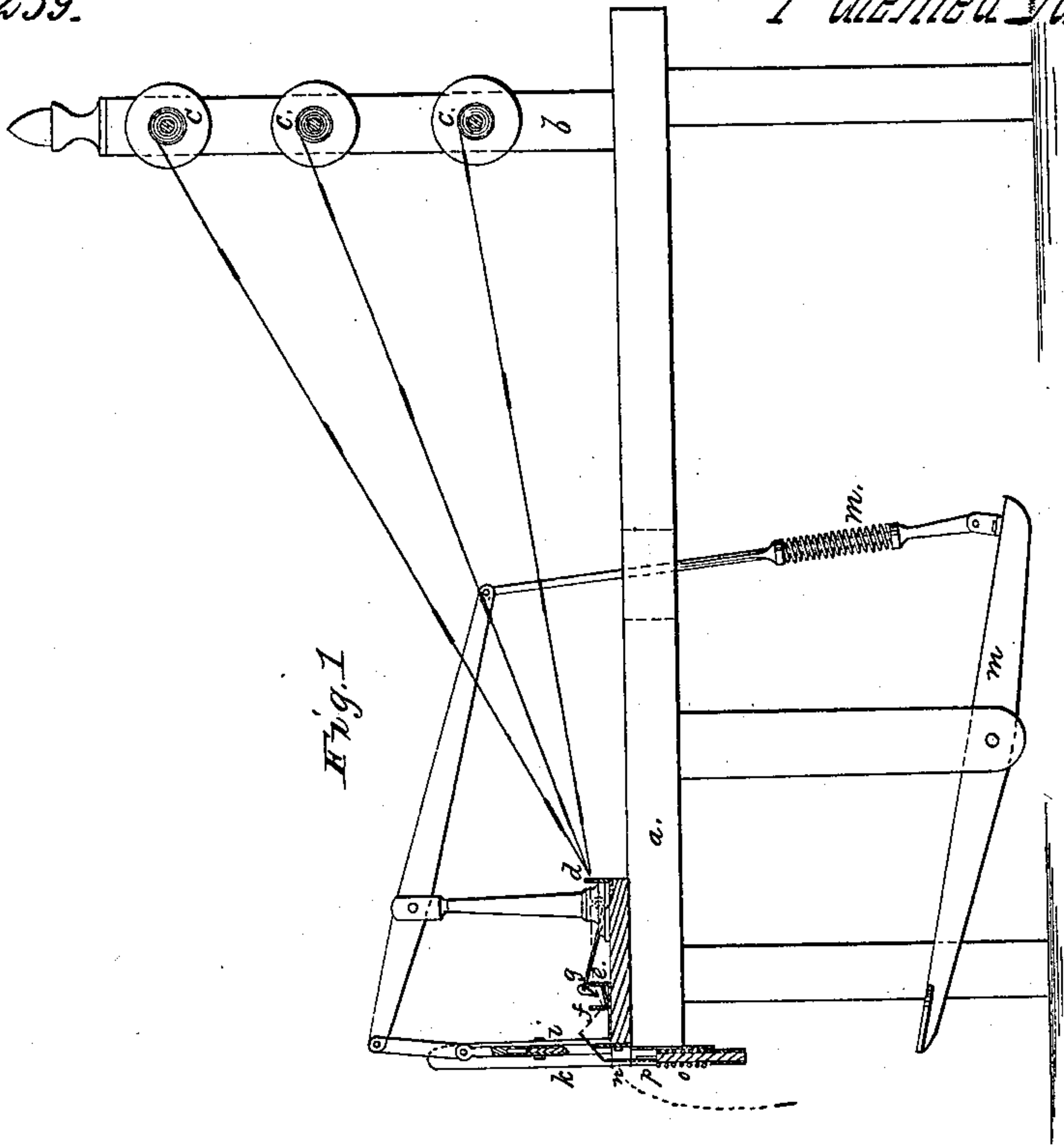


Fig. 1

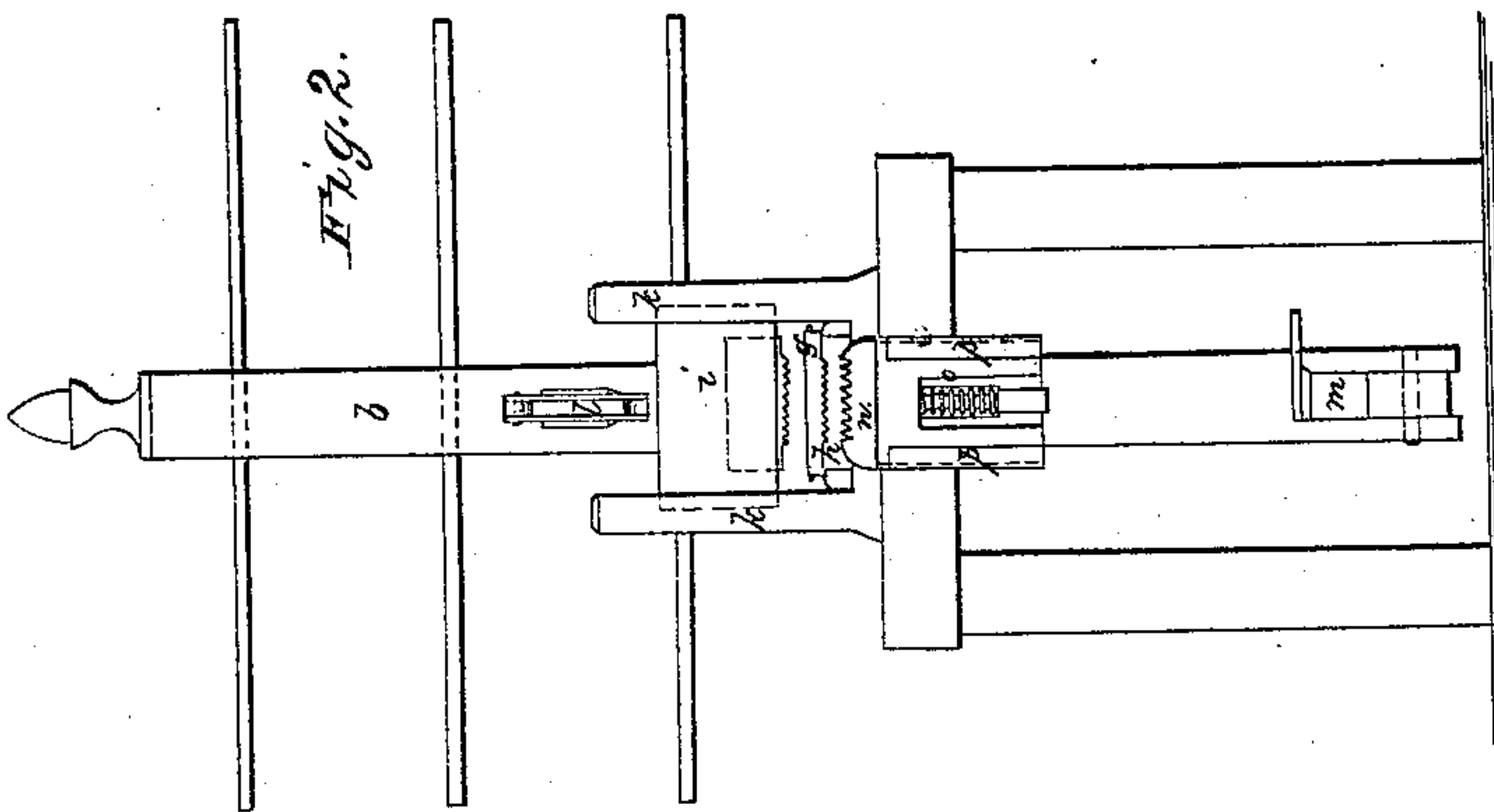


Fig. 2

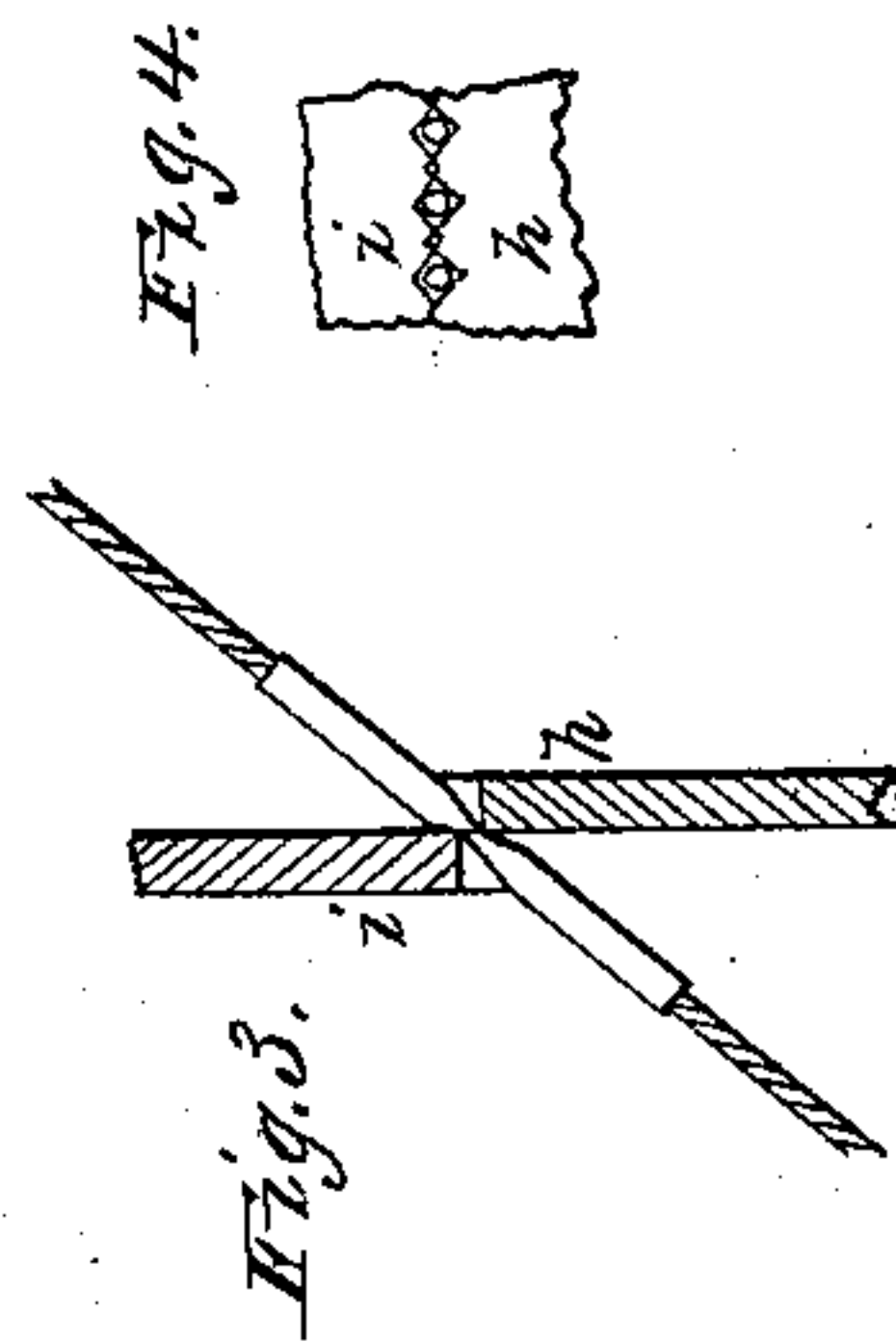


Fig. 4

Fig. 3

Witnesses
A. F. Collins
Cornelius Bellamy

Inventor.
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UNITED STATES PATENT OFFICE.

FREDERICK J. SEYMOUR, OF WOLCOTTVILLE, CONNECTICUT.

MACHINE FOR CUTTING TAGS ON SHOE-LACES.

Specification forming part of Letters Patent No. 41,239, dated January 12, 1864.

To all whom it may concern:

Be it known that I, FREDERICK J. SEYMOUR, of Wolcottville, in the county of Litchfield and State of Connecticut, have invented, made, and applied to use a certain new and useful Machine for Cutting Tags on Shoe-Laces, &c.; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a longitudinal section of said machine, and Fig. 2 is an elevation at the front end.

Similar marks of reference denote the same parts.

Braid has heretofore been made in continuous lengths and surrounded at given distances by a strip of sheet metal folded or rolled up in cylindrical form and constituting a double tag, which, when separated, leaves a tag on each end of the lace. This character of double-tagged braid, having been well known in the trade for a considerable period, requires no further description. In order to point the tags at the ends of the braid said double tags have been separated by a diagonal cut.

My invention does not consist in the double-tagged braid or in the separation of such by a diagonal cut; but my said invention consists in peculiar character of serrated cutter that receives the tag in a diagonal position and separates both the double tags and lace by a compressing and diagonal cutting operation that points the ends of both tags; and I employ a yielding comb that acts as a distributor to the tagged braid and as a gage to the tags while being cut; and I employ a clamp that retains the tag-braid near the end thereof, so that it is in position to be easily seized and pulled through for the next operation of separating the tags and laces.

In the drawings, *a* represents a table or bed with a standard, *b*, or other suitable support, sustaining reels or spools *c c*, upon which double-tagged braid is wound, and there may be any desired number of said spools. I have shown the machine as adapted to twelve such spools or reels; but it is preferable that twenty-four reels be employed as furnishing one dozen pairs of laces each stroke of the machine.

From the reels *c* the double-tagged braid passes through guide-holes in a plate at *d*,

thence through a second and third range of guide-holes, as at *e f*; and between these holes at *e* and *f* is a spring-clamp, *g*, resting upon the laces with sufficient power to prevent the ends of the braid drawing back and coming out of the guide-holes in *f* in consequence of the weight of tagged braid hanging between *e* and *d*.

h is a stationary serrated cutter, and *i* is a corresponding cutter, which slides in standards *k*, and is actuated by a lever, *l*, and treadle *m*; and *m'* is a spring that draws down the back end of the lever *l*, raising the cutter *i* when the treadle *m* is released. Any suitable mechanism might be used to give motion to the cutter *i*.

n is a yielding comb-formed gage that is kept upward by a spring, *o*, and slides in fixed guides *p*. The notches in this comb *n* are large enough for the lace itself to be drawn into, but too small for the tag to pass. The attendant therefore places his hand through between the cutters *h* and *i*, seizes the whole of the laces, and draws them through the guide-holes *d*, *e*, and *f*, pulling them off the reels, and when nearly the length of lace has been drawn along, so that the tags are near the cutters *h* and *i*, the attendant distributes and draws the laces into and through the said comb-gage until the tags are arrested against the back of said comb, in which position the tags themselves will stand at an inclination up against the cutter *h* and within the respective notches thereof, as indicated in Fig. 1, where the red lines represent the braid and tags thereon. In this position, if the cutters had straight cutting-edges a separation of the tags would be effected diagonally by bringing the said cutters together, but the ends of the tags would be flattened. By having the cutting-edges *h* and *i* leveled and notched or serrated, as seen in larger size in Figs. 3 and 4, the ends of the tags are compressed by the inclined sides of the serrations before being entirely separated diagonally by the cutters, so that the points of the tag are tapered in all directions and better adapted to use than when simply separated by a diagonal cut.

Upon the cut taking place the comb *n* is pressed downward by and with the tags as said tags are carried down by the cutter *i* in completing the separation of the double tags and braid. Thereby injury to the tags by the

pressure of the cutter *i* against their ends is prevented.

The laces are lifted out of the comb *n* when the cutter *i* rises, upon releasing the treadle *m*, and the attendant draws the tagged braid through to be operated on as before.

The serrated cutters *h* and *i* should be made nearer together at one end than at the other, in order that the tags may be separated successively and more easily than if they were all cut simultaneously.

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

1. The notched cutters *h* and *i*, receiving the double-tagged braid in a diagonal posi-

tion and compressing and separating such double tags, substantially as specified.

2. The yielding comb *n*, in combination with the cutters that separate the double-tagged braid, substantially as specified.

3. The guide-hole *f*, in combination with the presser or clamp *g*, for the purpose and as specified.

In witness whereof I have hereunto set my signature this 19th day of October, 1863.

FREDERICK J. SEYMOUR.

Witnesses:

I. F. COLLERSON,
CORNELIUS BELLAMY.