

(No Model.)

2 Sheets—Sheet 1.

J. H. STONEMETZ.

POINT MECHANISM FOR BOOK FOLDING MACHINES.

No. 379,737.

Patented Mar. 20, 1888.

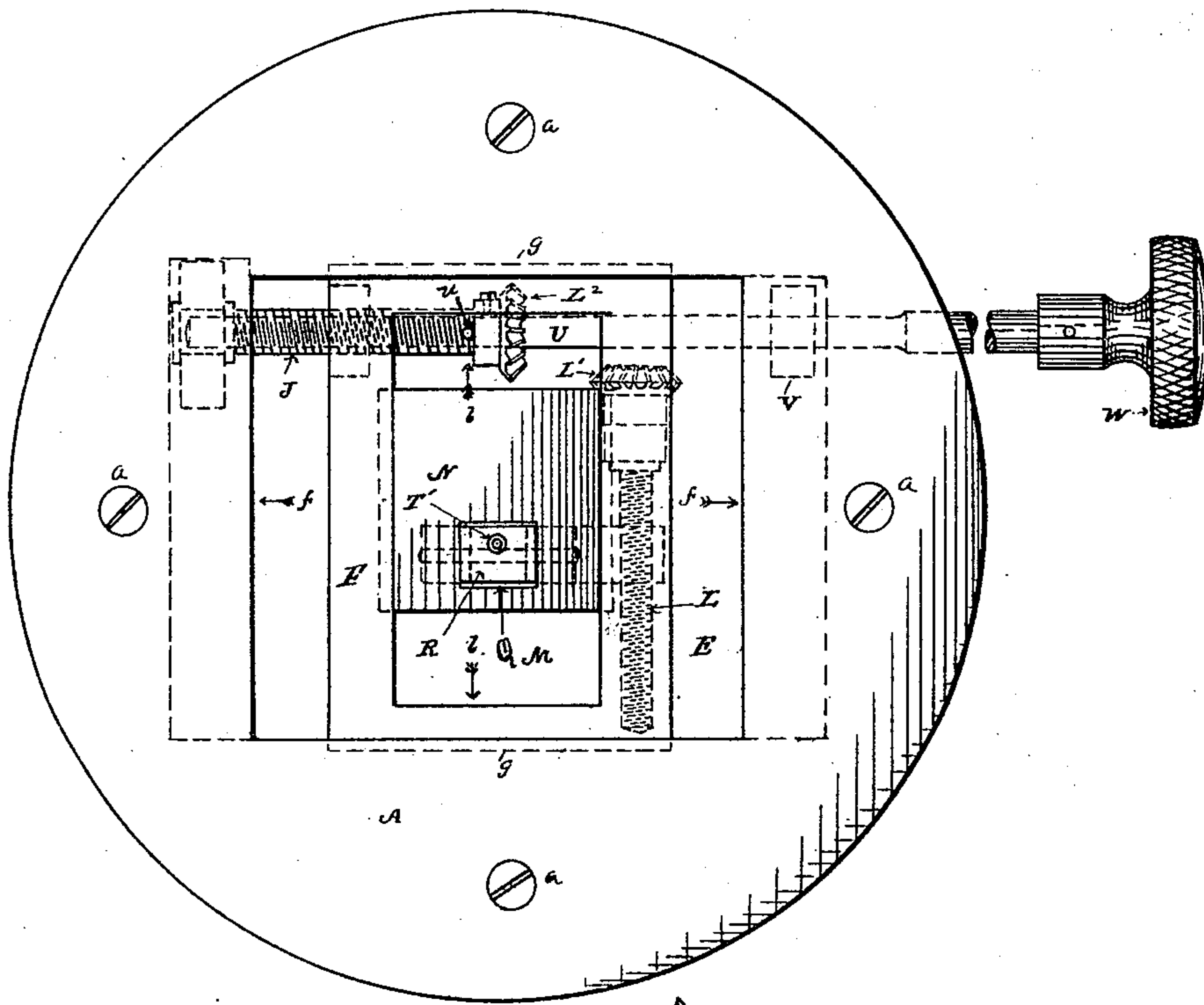


Fig. 1.

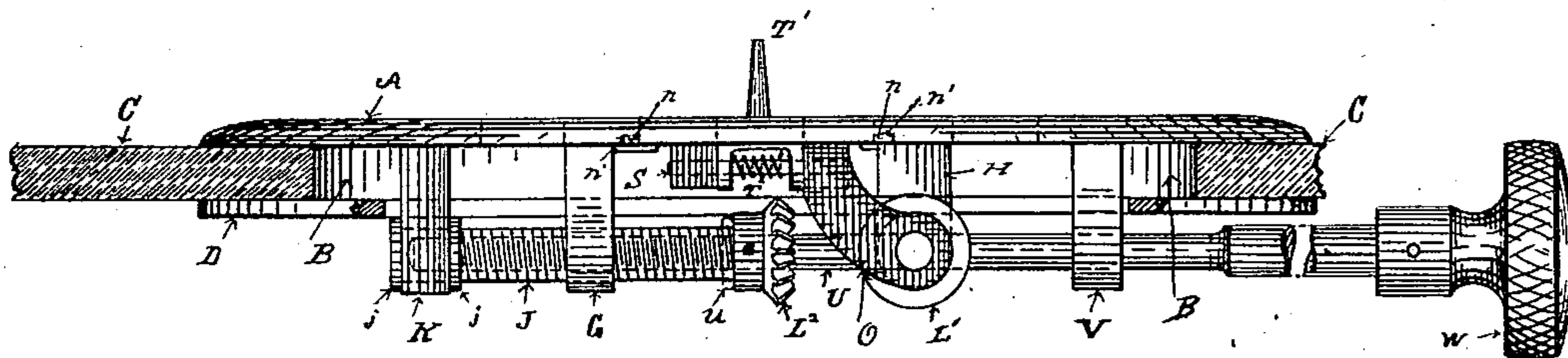


Fig. 2.

Witnesses.

G. J. Mead,  
Huntington.

Inventor.

John H. Stonemetz.  
Per H. Sturgeon,  
Atty.

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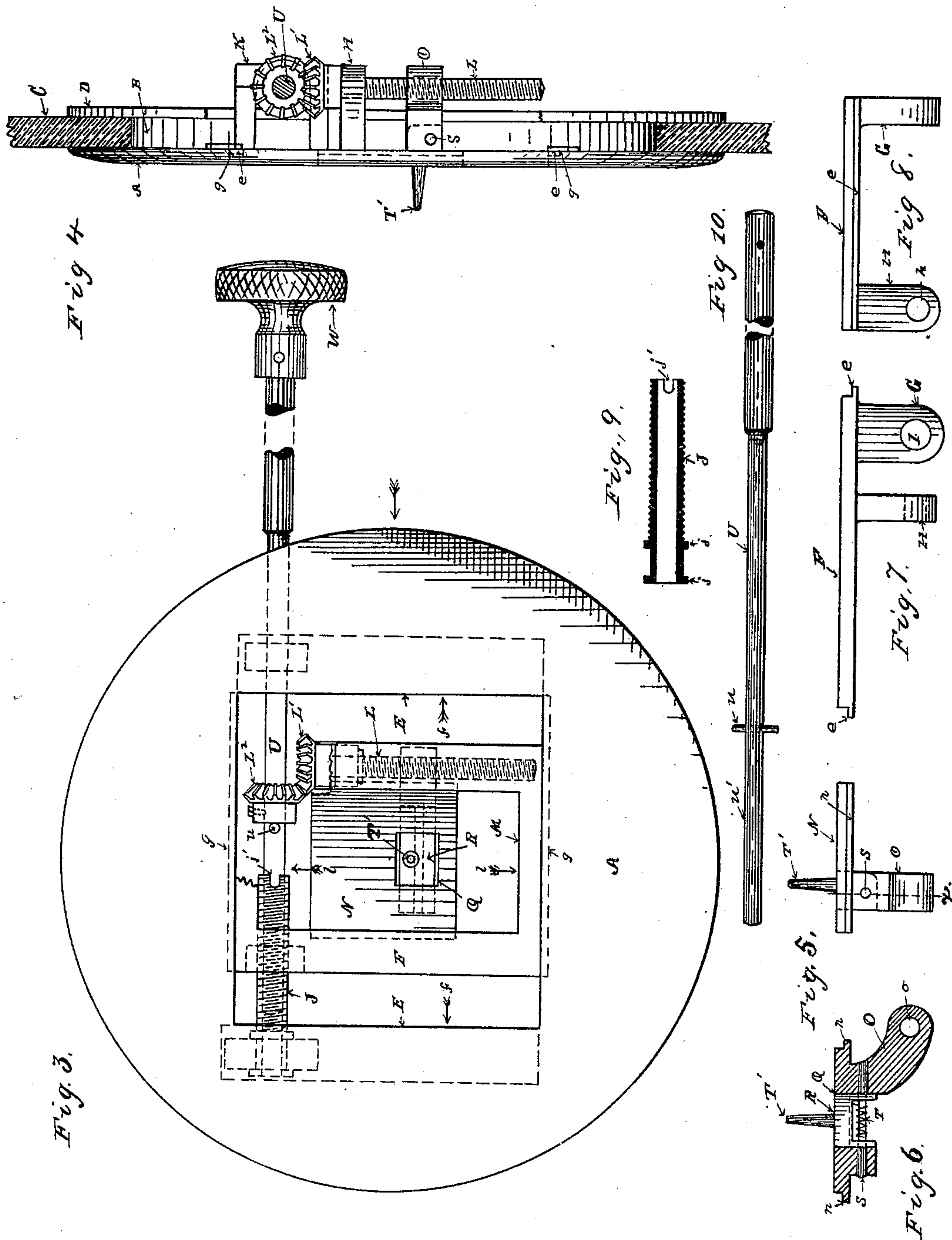
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# UNITED STATES PATENT OFFICE.

JOHN H. STONEMETZ, OF MILLBURY, MASSACHUSETTS, ASSIGNOR TO THE  
STONEMETZ PRINTER'S MACHINERY COMPANY, OF SAME PLACE.

## POINT MECHANISM FOR BOOK-FOLDING MACHINES.

SPECIFICATION forming part of Letters Patent No. 379,737, dated March 20, 1888.

Application filed August 6, 1887. Serial No. 246,350. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. STONEMETZ, a citizen of the United States, residing at Millbury, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Point Mechanism for Book-Folding Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention consists in the improvements in point mechanism for book-folding machines hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of my improvement. Fig. 2 is a side elevation of same, looking in the direction of the arrow in Fig. 1. Fig. 3 is another top or plan view of my improvement. Fig. 4 is an edge view of same, looking in the direction of the arrow in Fig. 3. Fig. 5 shows a side elevation of the point-plate detached from the remainder of the device. Fig. 6 shows a cross-section of same on the line *x* in Fig. 5. Fig. 7 shows a side elevation of the movable supporting-plate in which the point-plate, Fig. 5, operates. Fig. 8 shows an end elevation of same. Fig. 9 shows a hollow screw for operating the plate, Fig. 7. Fig. 10 shows the rod for operating my improved point mechanism.

Like letters refer to like parts in all of the figures.

In constructing my improvement I make a plate, A, preferably of circular shape, of suitable size to cover an opening, B, therefor in the table C. A ring, D, fits against the under side of the table C around the opening B therein. Screws *a* pass through the plate A into the ring D, by means whereof the plate A is secured in place.

In the center of the plate A, I cut a rectangular opening, E, in which opening E, I secure the sliding plate F, Figs. 7 and 8, by means of tongues *e e* on the edges thereof fitting into grooves *g g*, (shown in Fig. 4 and also

in dotted lines in Figs. 1 and 3,) the plate F being thus adapted to move back and forth in the opening E in the direction shown by the arrows *f f* in Figs. 1 and 3.

On the under side of the plate F are downwardly-projecting ears G and H. In the ear G, I make an opening, I, which is screw-threaded to receive and fit the hollow screw J, which is provided at one end with collars *j j*, by means whereof the screw J is secured in arm K, (see Fig. 2,) which projects downwardly from the under side of the plate A, so that when the screw J is in place the screw portion thereof passes through the ear G on the sliding plate F, and when rotated operates to move the plate F back and forth in the opening E, as desired. In one end of the screw J, I make a slot, *j'*, as and for the purpose hereinafter set forth.

In the lower end of the ear H on the plate F, I make an opening, *h*, in which is secured a screw, L, which is provided with a small miter-gear, L', as and for the purpose hereinafter set forth.

In the center of the plate F, I cut a rectangular opening, M, in which I secure the point-plate N, Figs. 5 and 6, by means of the tongues *n n* on the edges thereof fitting into grooves *n' n'* in the sides of the opening M, (see Fig. 2 and the dotted lines in Figs. 1 and 3,) the point-plate being thus adapted to move back and forth in the opening M in the direction of the arrows *l l*.

On the under side of the point-plate N, I secure an arm, O, which projects downwardly and laterally, so as to bring the opening *o* therein in line with the screw L, which opening *o* is screw-threaded to fit the screw L, so that when the screw L is in place and is rotated it operates to move the point-plate back and forth in the opening M, as desired.

In the center of the point-plate N, I make an opening, Q, in which I secure the point-block R by means of a pintle, *s*, a spring, T, being placed therein, which operates to keep the point T in a normally-upright position, but which allows the point to turn on the pintle *s* to release it from the sheet.

It will be readily seen that the screw J operates to move the plate F and the point-plate



supported therein in one direction, while the screw L operates to move the point-plate N at right angles to the line of movement of the plate F.

5 To operate the screws J and L, I make a rod, U, Fig. 10, which is provided with a pin, *u*, therein adapted to fit into the slot *j'* in the end of the screw J and turn the same, as shown in Fig. 1, while the end *u'* of the rod U is of  
10 suitable size to pass through the hollow screw J, which forms a bearing therefor. Upon the rod U, near the pin *u*, I secure a miter-gear, *L*<sup>2</sup>, adapted to fit and intermesh with the miter-gear *L'* on the screw L, as shown in Figs.  
15 3 and 4. From the hollow screw J, which forms a bearing for the end *u'* of the rod U, the rod U passes through a lug, V, secured to the under side of the plate A, which forms another bearing therefor, from whence the rod U extends to and a little beyond the edge of the  
20 table, where it terminates in a knob, W, adapted for turning the same.

In operation, when the operator desires to adjust the point T to any desired position, by  
25 thrusting the rod U inward until the pin *u* therein engages with the slot *j'* in the hollow screw J, as shown in Fig. 1, and turning the rod U, rotates the screw J, thereby moving the plate F, carrying the point-plate N, back and  
30 forth in the direction of the arrows *ff*, and when the adjustment is sufficient in that direction the operator draws the rod U out, so as to bring the miter-gears *L*<sup>2</sup> and *L'* into mesh, as shown in Fig. 3, then by again turning the  
35 rod U rotates the screw L, thereby moving the point-plate N back and forth in the direction of the arrows *ll*. Thus it will be seen that by means of this mechanism the point T can be quickly adjusted to any desired position. It  
40 will also be seen that the entire point mechanism is secured to the table, so that when the table is removed from the machine the entire point mechanism goes with it.

45 In the drawings I have shown a plate A having the point mechanism therein and means for securing it over an opening, B, in the table C. However, if desired, I can make the open-

ing E directly in the table itself and grooves in the sides of the opening to receive the plate F with equal facility; but I prefer the construction shown in the drawings. 5c

Having thus fully described my invention, so as to enable others to construct and operate the same, what I claim as new, and desire to secure by Letters Patent of the United States, 55 is—

1. The combination, in the point-plate-actuating mechanism of a book-folding machine, of one screw having a miter-gear thereon and another hollow screw having a slot or groove 60 in the end thereof, by means whereof each of said plates can be moved, with a single shaft having a miter-gear and stud-pins thereon and adapted to be moved longitudinally to engage with and actuate both of said screws one 65 at a time, substantially as and for the purpose set forth.

2. The combination, in the point-plate mechanism of a book-folding machine, of two actuating-screws, one of which is adapted to move 70 one of the plates to and fro in the table-top and the other to move another plate mounted in the first-named plate at right angles to the movement of the first-named plate, with a single screw-actuating shaft adapted to be moved 75 so as to engage alternately with each of said screws, substantially as and for the purpose set forth.

3. The combination, in the point mechanism of a book-folding machine, of the hollow screw 80 J, mounted in the bearing K, and passing through the ear G on the plate F, and the screw L, and the miter-gear *L'* thereon mounted in the ear H on the plate F, and passing through the arm O on the point-plate N, and the rod 85 U, having thereon the pin *u*, and the miter-gear *L*<sup>2</sup>, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. STONEMETZ.

Witnesses:

J. D. CLARK,

C. W. CUNNINGHAM.