

(Model.)

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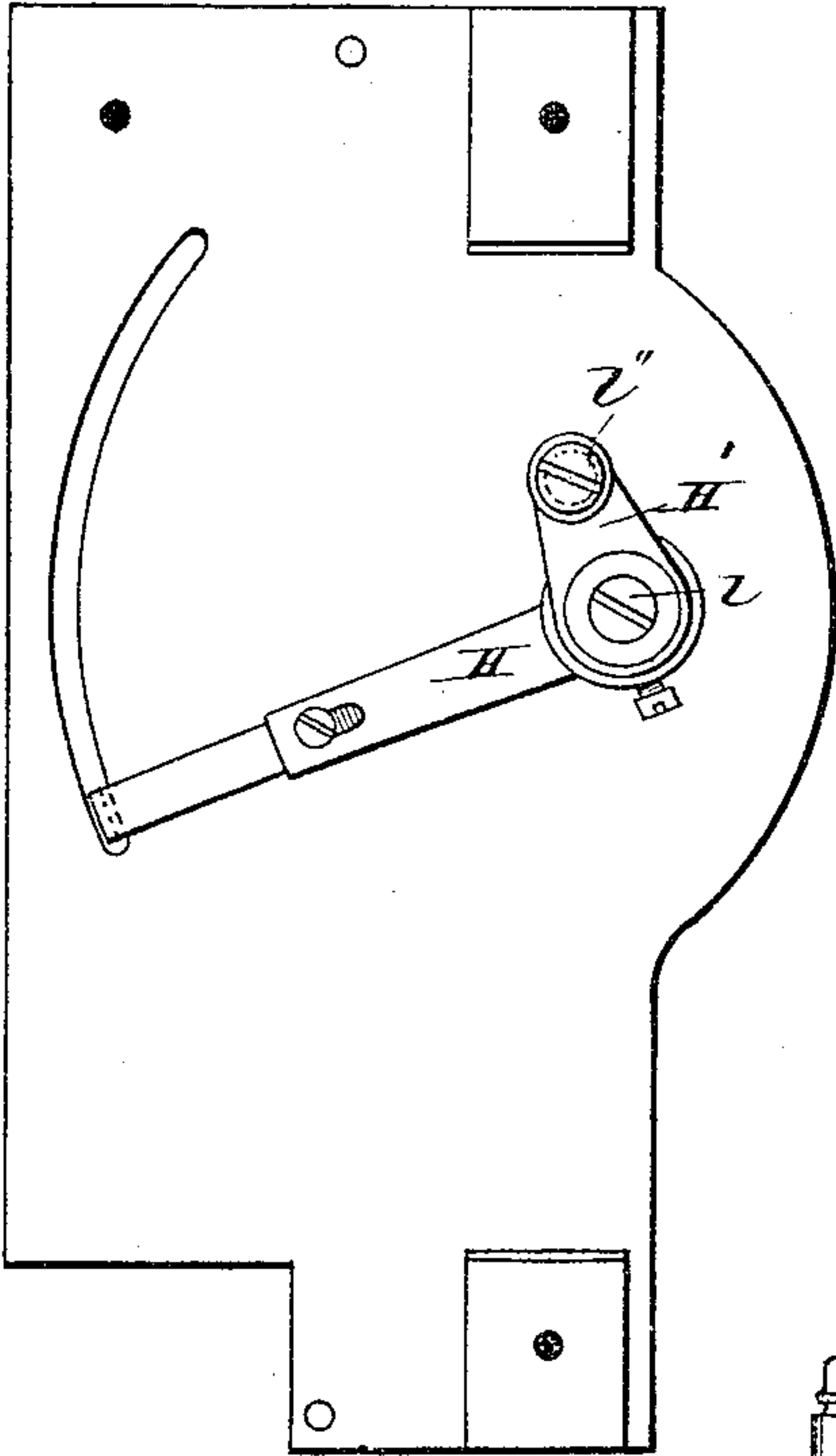
C. E. TIBBLES.

TAKE-UP MECHANISM FOR SEWING MACHINES.

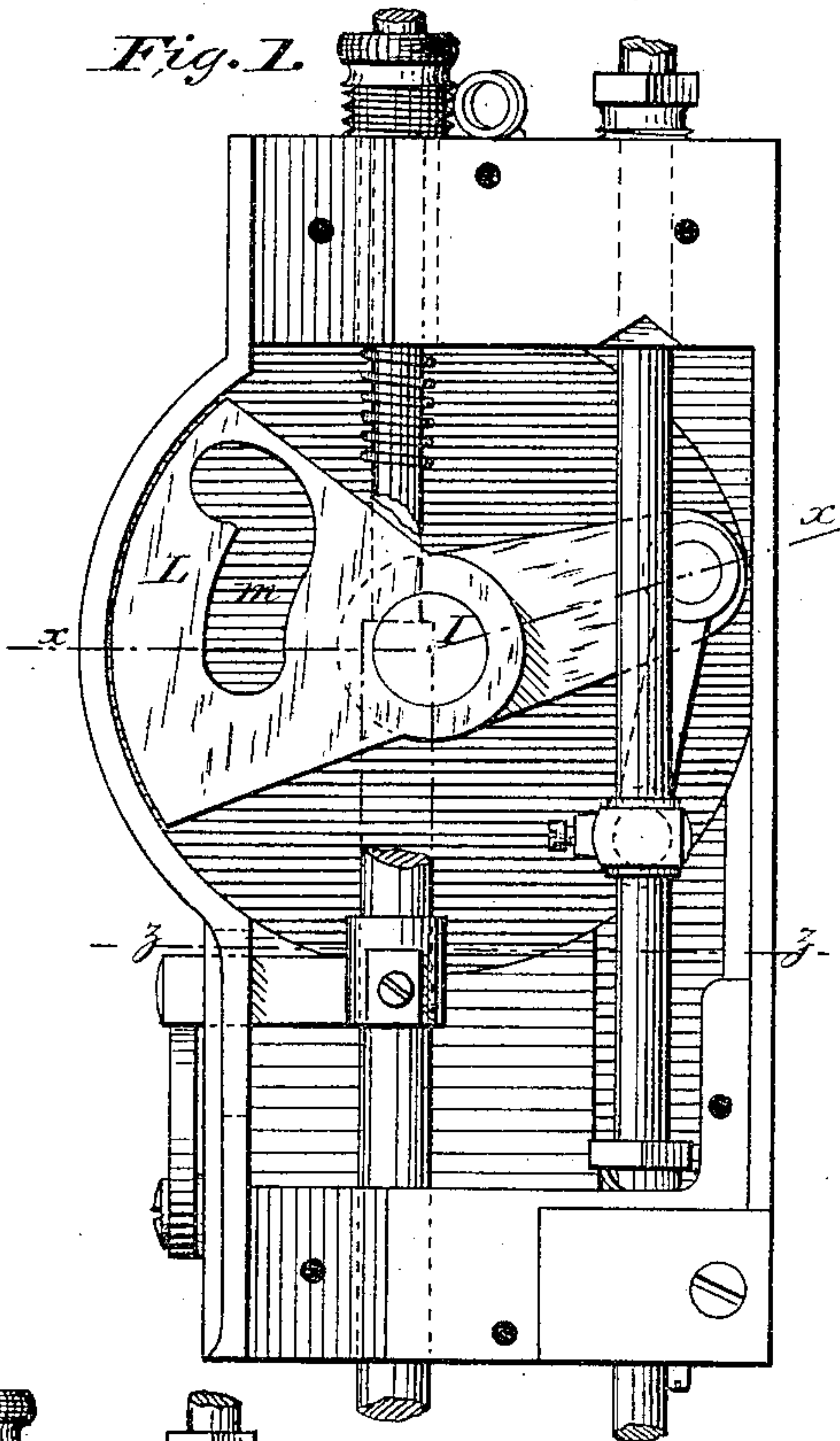
No. 328,536.

Patented Oct. 20, 1885.

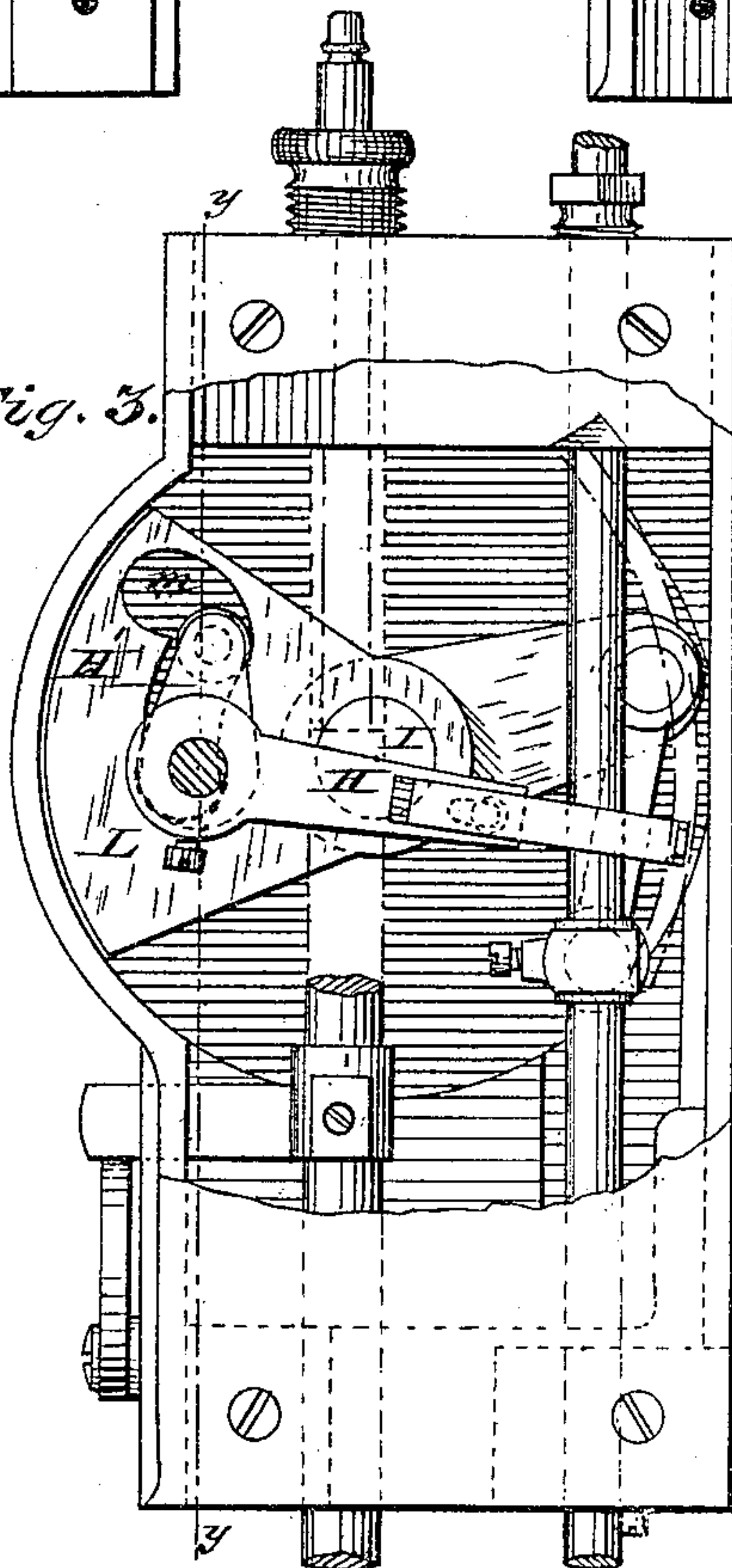
*Fig. 2.*



*Fig. 1.*



*Fig. 3.*



*Witnesses:*

*T. C. Brecht,*  
*F. A. Ellsworth.*

*Inventor:*

*Charles E. Tibbles,*

*By R. K. Evans*

*Attorney*

(Model.)

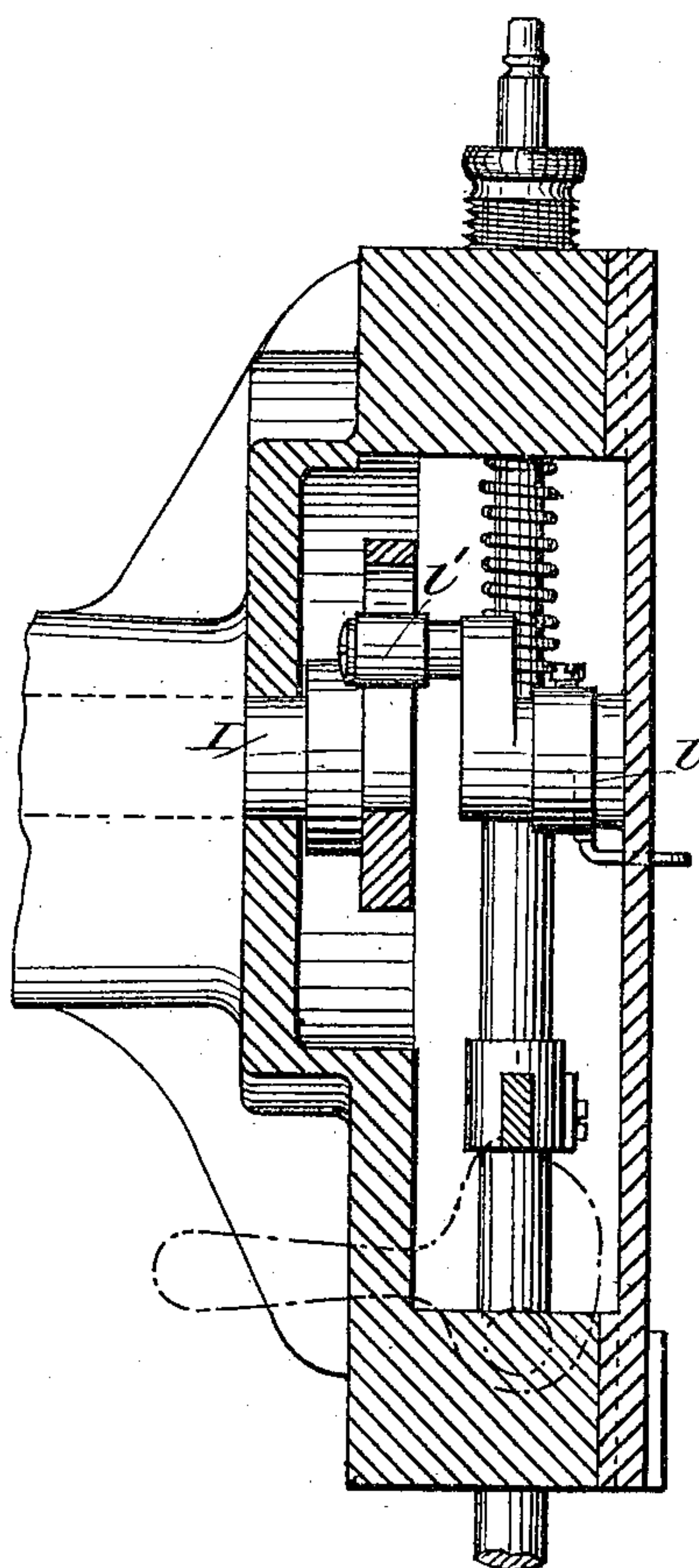
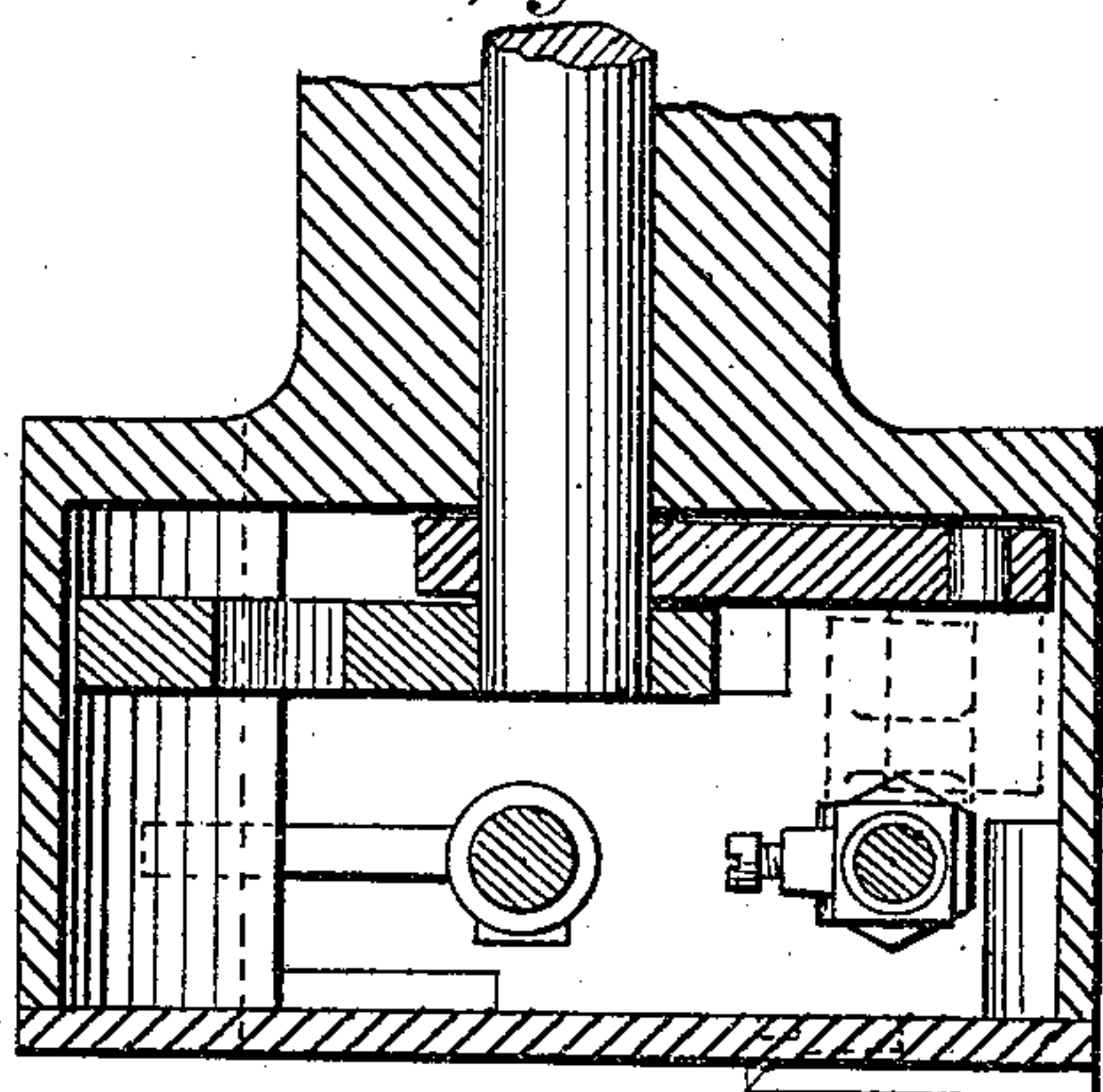
2 Sheets—Sheet 2.

C. E. TIBBLES.

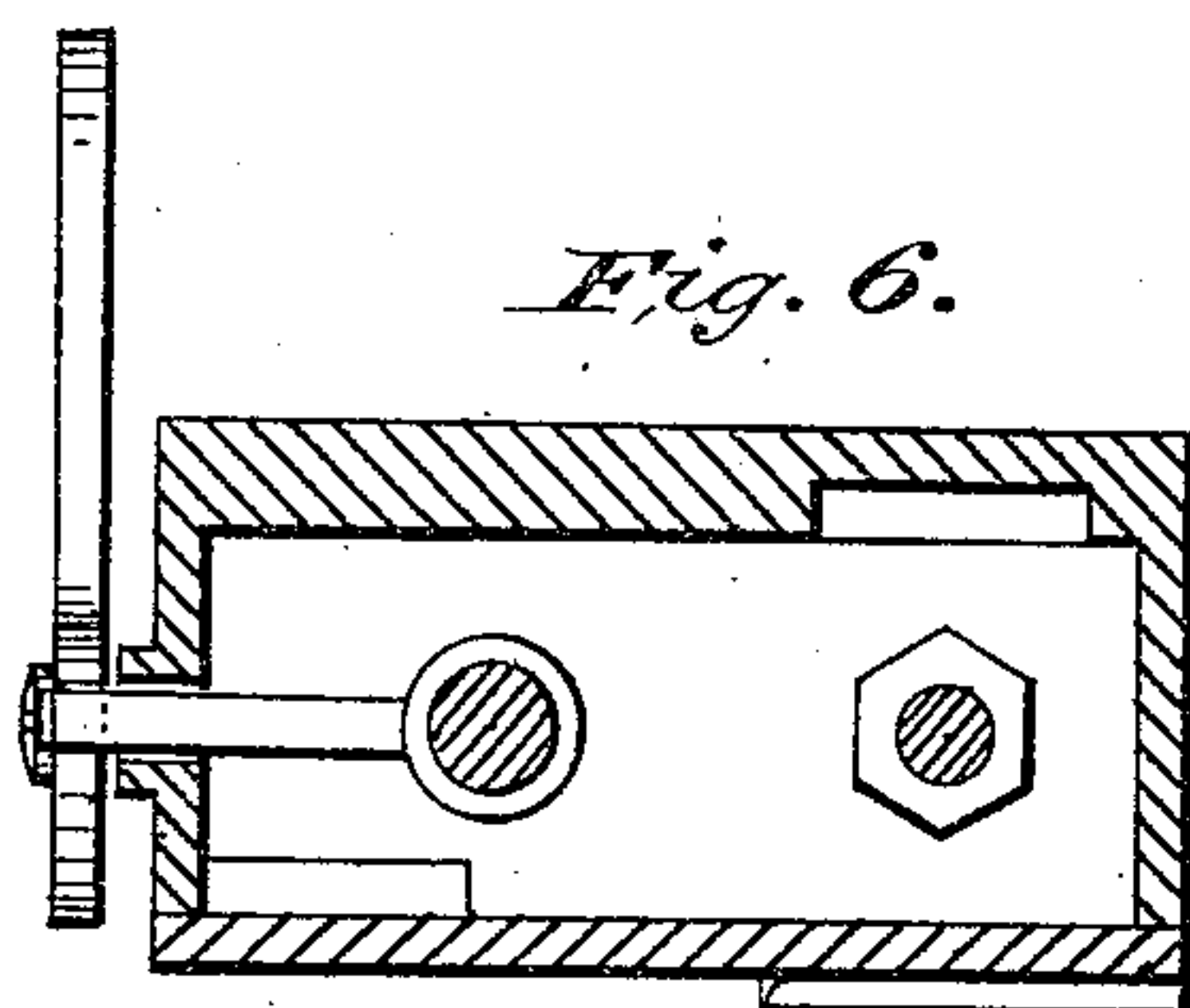
TAKE-UP MECHANISM FOR SEWING MACHINES.

No. 328,536. *Fig. 5.*

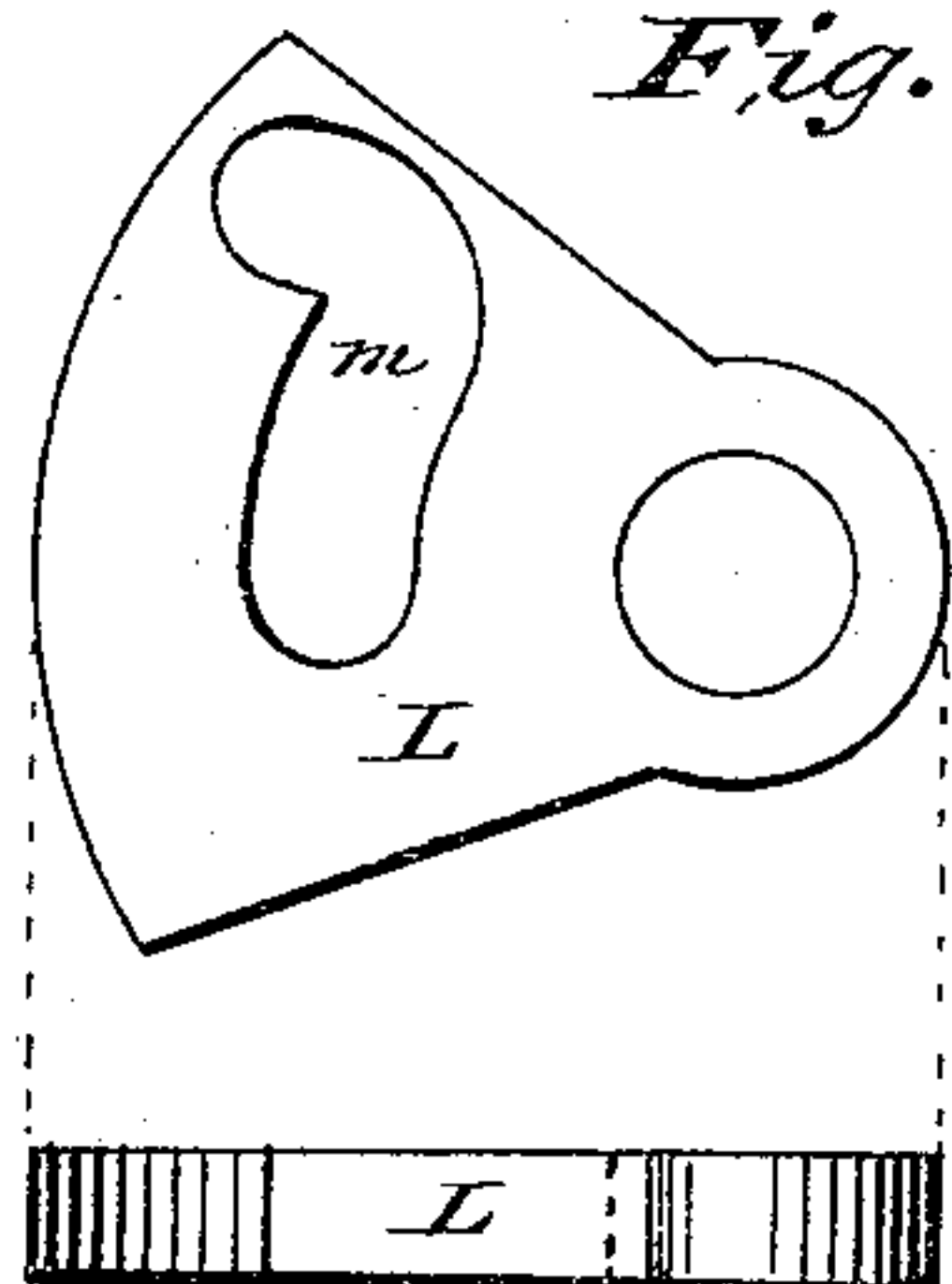
Patented Oct. 20, 1885. *Fig. 4.*



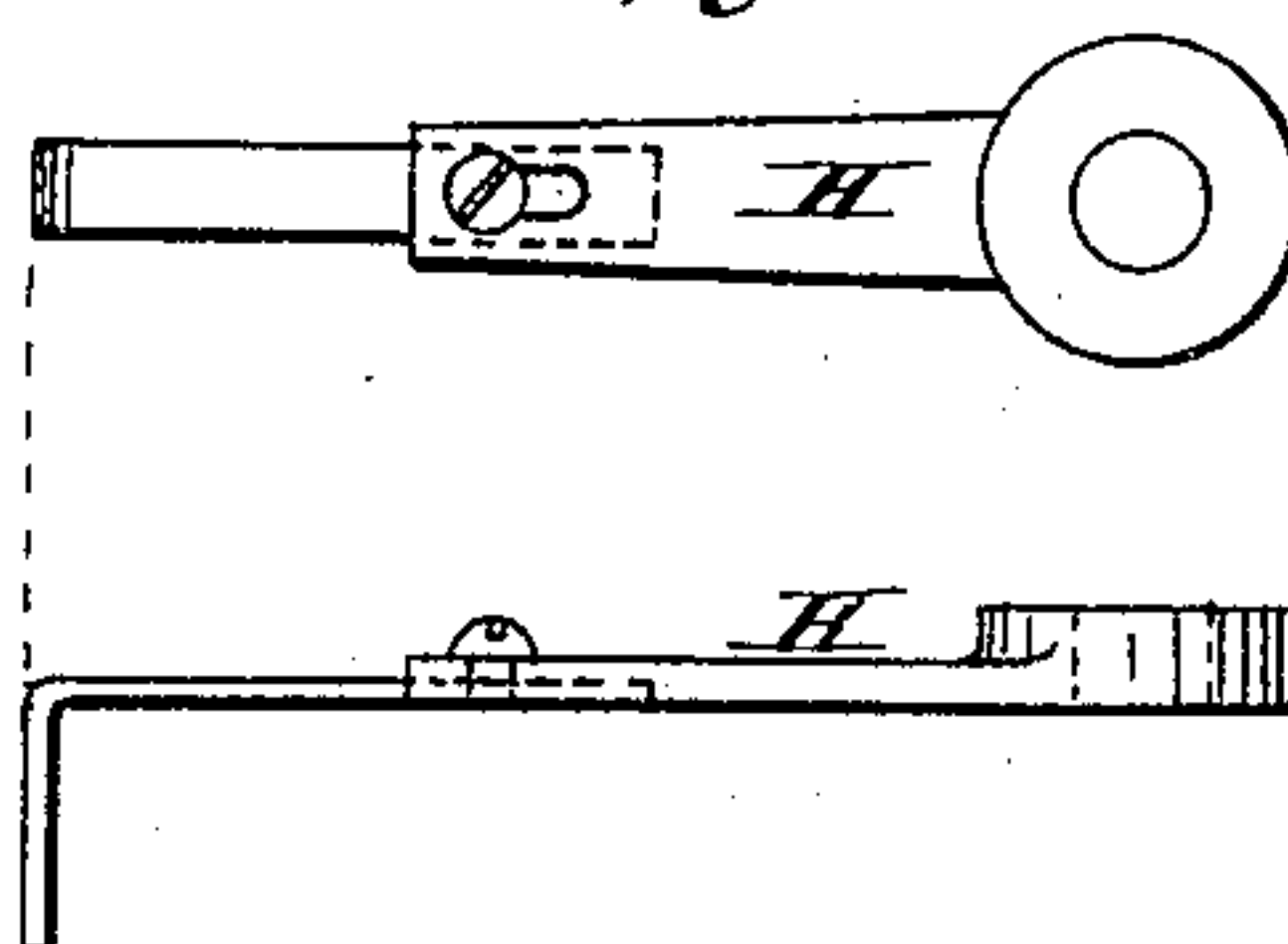
*Fig. 6.*



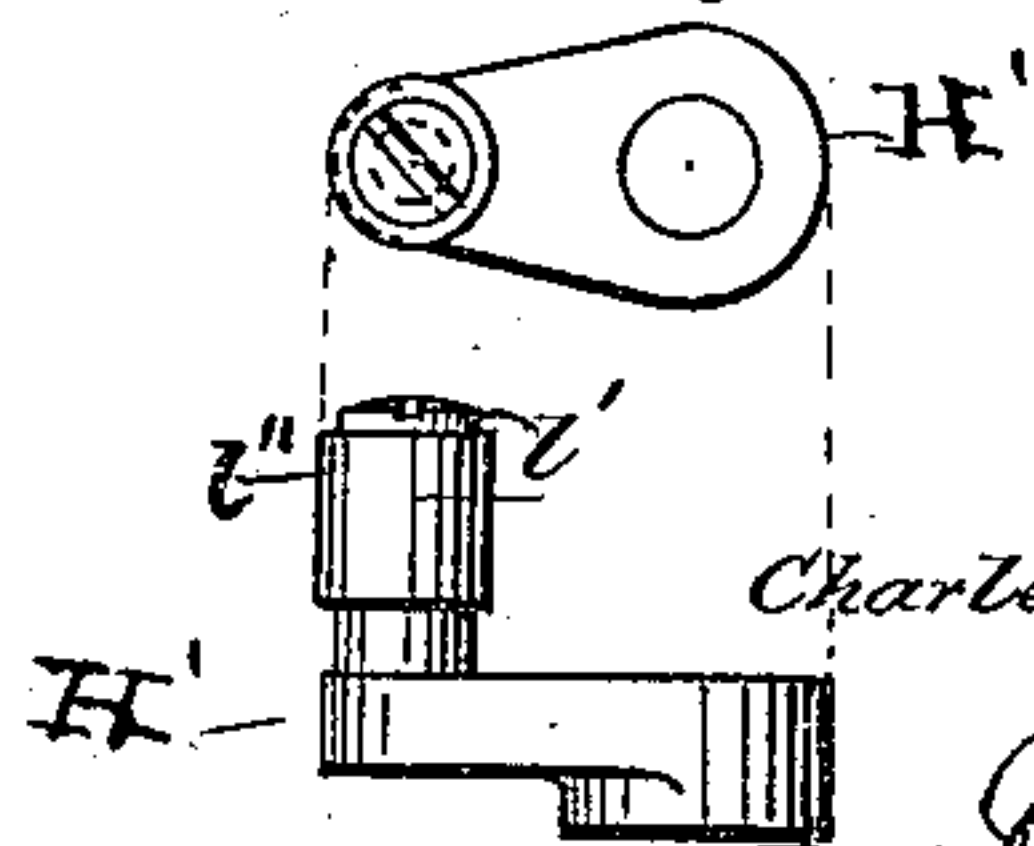
*Fig. 7.*



*Fig. 8.*



*Fig. 9.*



Witnesses:

*J. C. Brecht,*  
*F. A. Ellsworth.*

Inventor:

*Charles E. Tibbles,*

*By R. K. Evans*

*Attorney*



# UNITED STATES PATENT OFFICE.

CHARLES E. TIBBLES, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE TIBBLES  
MANUFACTURING COMPANY, OF SAME PLACE.

## TAKE-UP MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 328,536, dated October 20, 1885.

Application filed March 5, 1885. Serial No. 157,786. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES E. TIBBLES, of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Take-Up Mechanisms for Sewing-Machines; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation of the head of a sewing-machine with the face-plate removed, showing the cam-arm to operate the take-up. Fig. 2 is an inside view in elevation of the removed face-plate and take-up arm. Fig. 3 is an elevation of the head of the machine with the face-plate broken away and exposing the take-up lever and operating-arm. Fig. 4 is a vertical section on the line *yy* of Fig. 3. Fig. 5 is a horizontal section on the line *xx* of Fig. 1. Fig. 6 is a horizontal section on the line *zz* of Fig. 1. Fig. 7 shows details of the cam-arm. Fig. 8 shows details of the take-up arm. Fig. 9 shows details of the crank-lever when made separate from the take-up arm.

My invention relates to mechanisms for operating the take-up arm of sewing-machines, and has for its object to produce a cheap and durable means for imparting a positive motion to the take up arm.

To this end my invention consists in a pivoted take-up arm in combination with a cam on the end of the needle-bar rock-shaft for operating the same.

In order that those skilled in the art may make and use my invention, I will proceed to

describe the exact manner in which I have carried it out.

In the said drawings, H is the take-up lever, having on its end a crank-lever, H', and pivoted to the face-plate by a shouldered screw, *l*, around which it freely vibrates. The end of the crank-lever H' has in it a pin, *l'*, on which is an anti-friction roller, *l''*. The rock-shaft I is provided with an arm, I', in which is cut a curved slot, *m*, of such a width as to fit roller *l''*. The curved or cam slot *m* is cut on a true curve drawn on a radius from the center of the rock-shaft for about two-thirds of its length, the other third turning abruptly away from the center. When the face-plate is fitted to the head of the machine, the roller *l''* enters the cam-slot *m*, and, as the rock-shaft vibrates arm E, the roller runs up and down the slot *m* and actuates the take-up arm or lever H through the medium of crank-arm H'. This construction of the slot causes the take-up lever to stand still an instant while it is at its lowest point, before it starts upward, and while the shuttle passes through the loop.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The rock-shaft I, provided with arm L', in which is cut a cam-slot, *m*, in combination with the take-up lever H, and an arm, H', to connect the take-up lever with arm L, substantially as specified.

CHARLES E. TIBBLES.

Witnesses:

F. A. ELLSWORTH,  
T. C. BRECHT.