

(No Model.)

2 Sheets—Sheet 1.

V. P. BUCK.

THREAD CUTTING ATTACHMENT FOR SHOE SEWING MACHINES.

No. 495,542.

Patented Apr. 18, 1893.

Fig. 1.

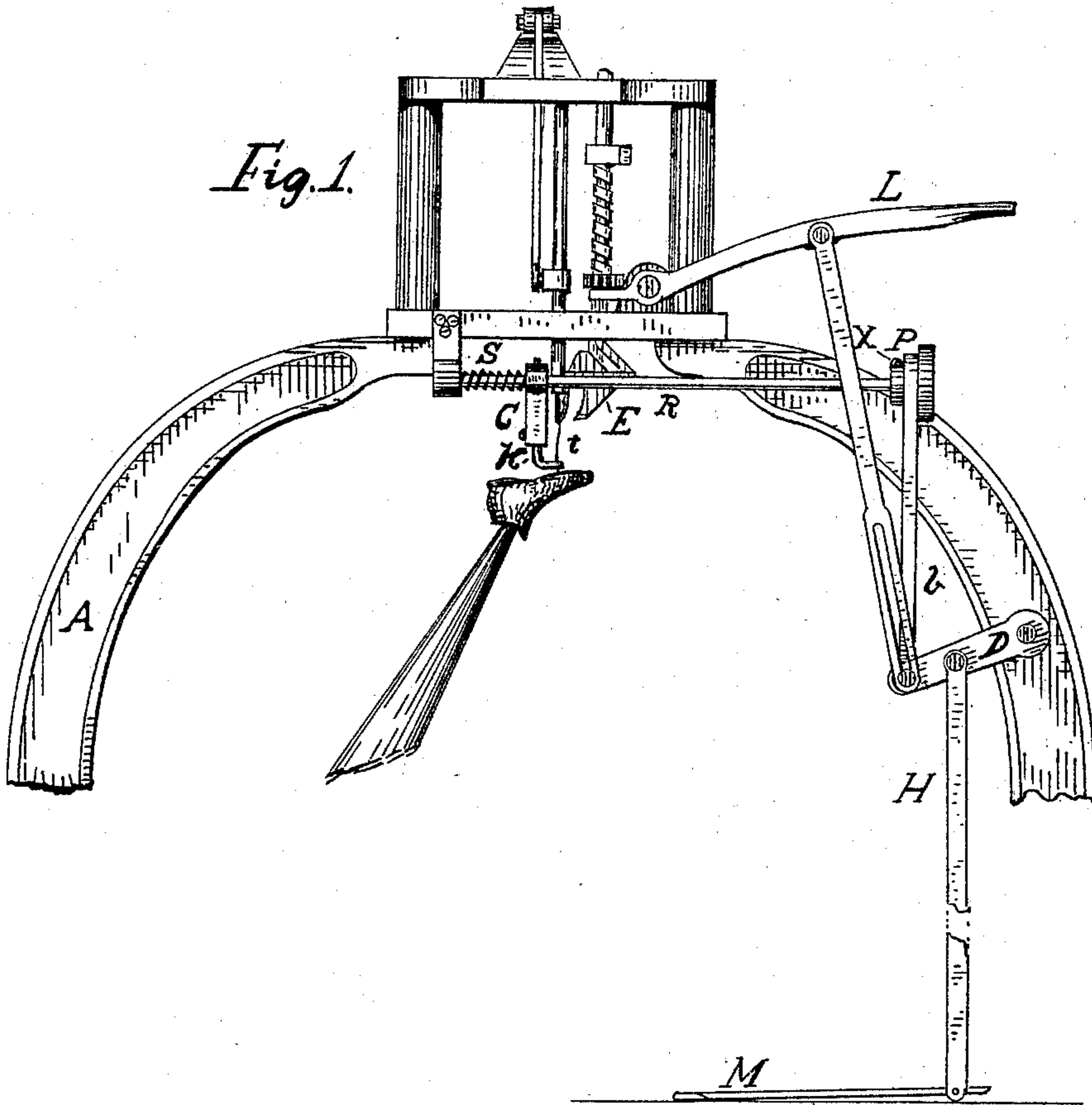


Fig. 4.

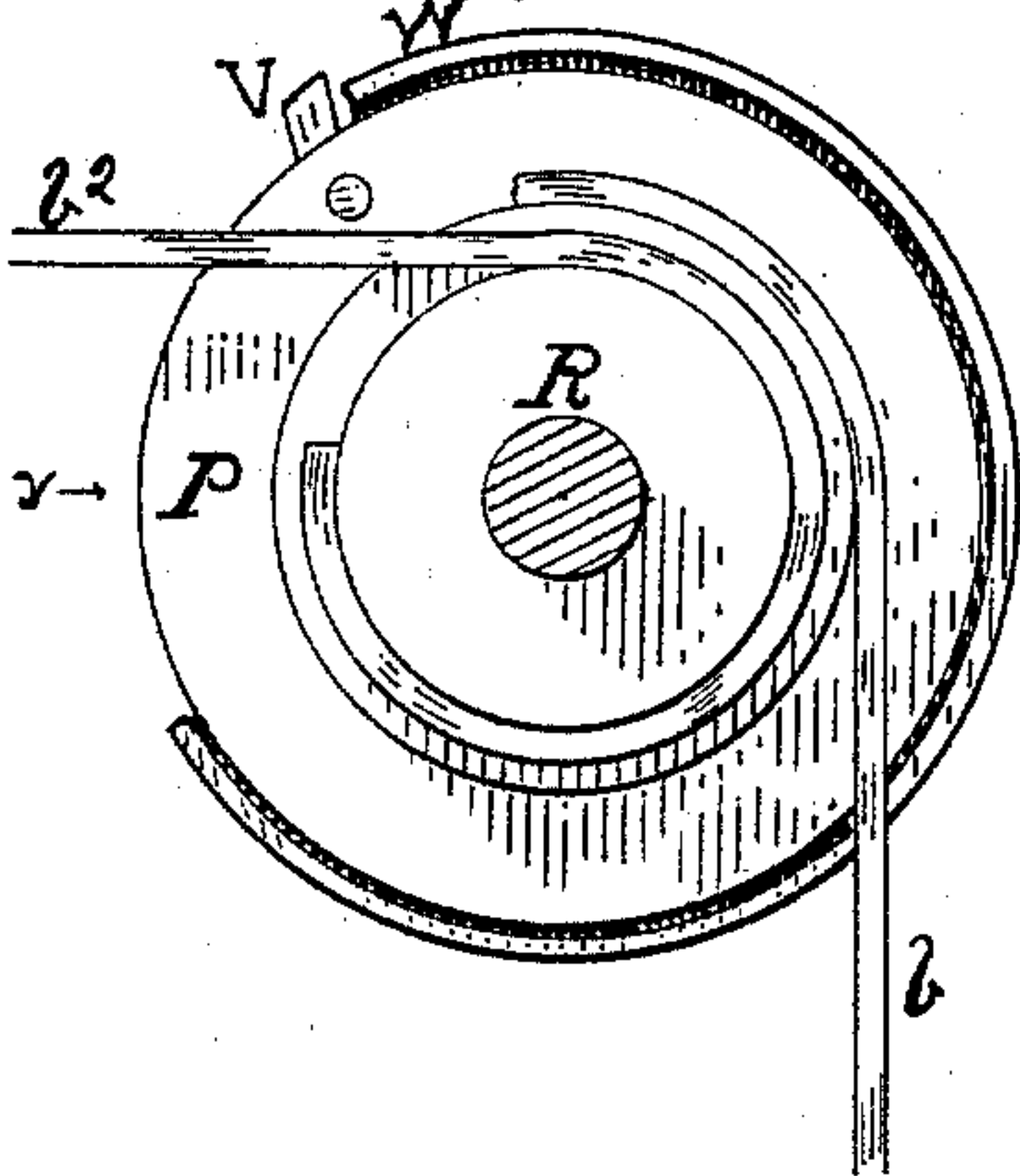
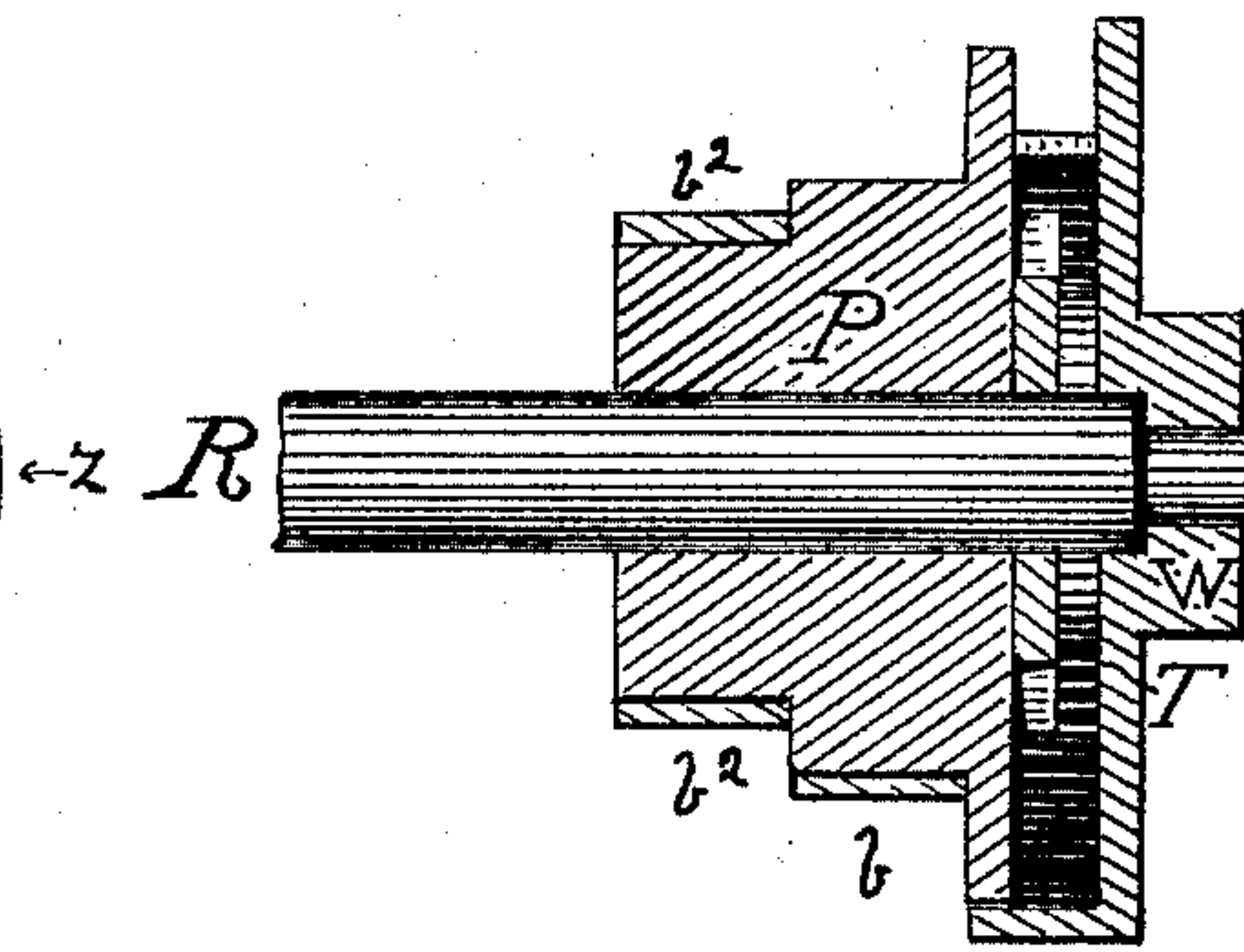


Fig. 5.



WITNESSES:

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(No Model.)

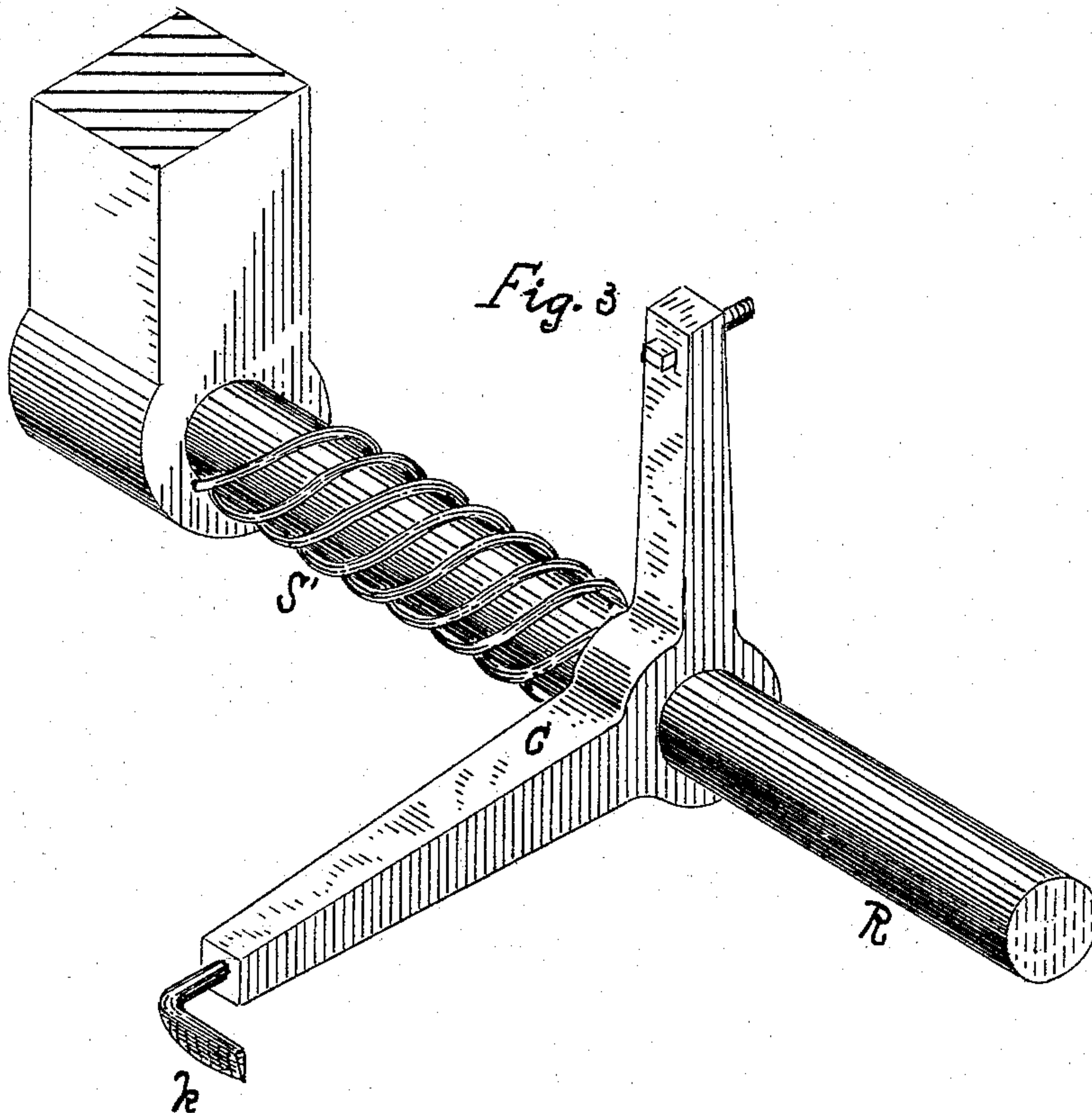
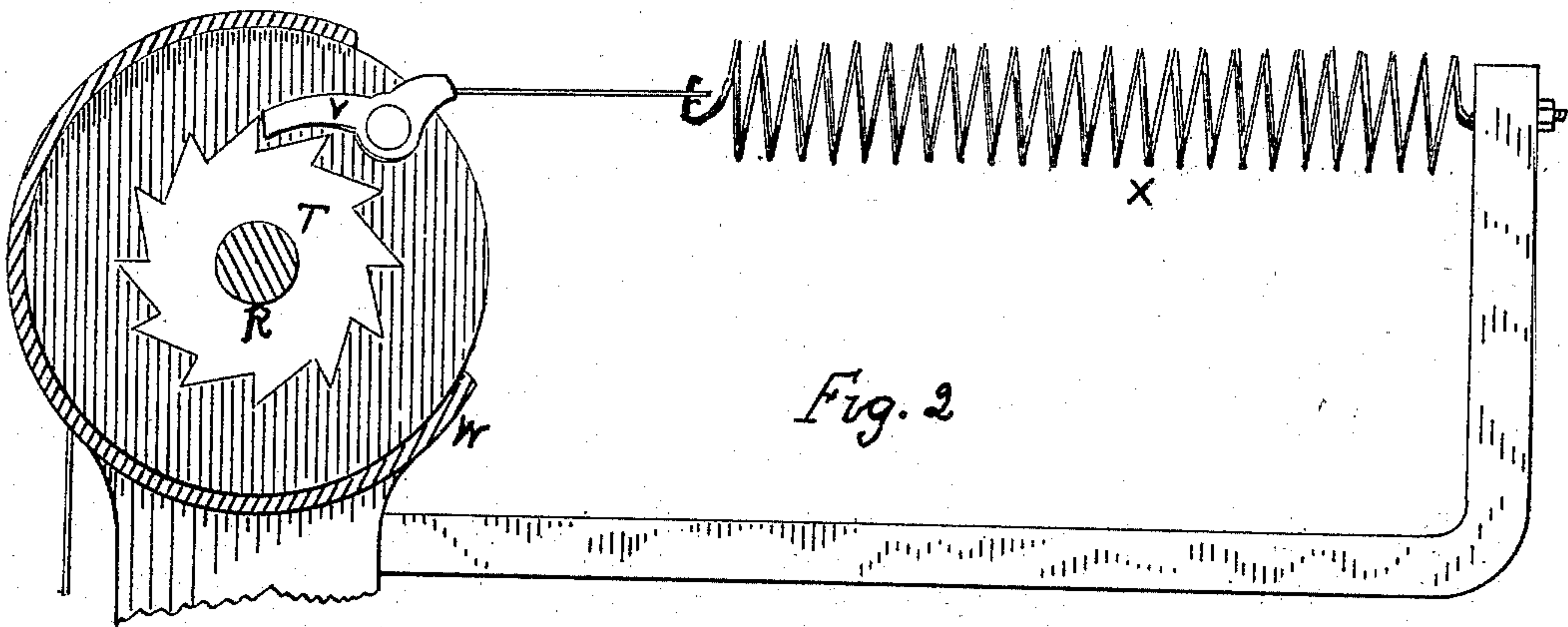
2 Sheets—Sheet 2.

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THREAD CUTTING ATTACHMENT FOR SHOE SEWING MACHINES.

No. 495,542.

Patented Apr. 18, 1893.



WITNESSES:

Fred B. Vining.
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INVENTOR

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UNITED STATES PATENT OFFICE.

VERTRUDE P. BUCK, OF AUBURN, MAINE.

THREAD-CUTTING ATTACHMENT FOR SHOE-SEWING MACHINES.

SPECIFICATION forming part of Letters Patent No. 495,542, dated April 18, 1893.

Application filed May 23, 1892. Serial No. 433,990. (No model.)

To all whom it may concern:

Be it known that I, VERTRUDE P. BUCK, a citizen of the United States, residing at Auburn, in the county of Androscoggin and State of Maine, have invented a new and useful Improvement in Thread-Cutting Attachments for Shoe-Sole Sewing-Machines, of which the following is a specification.

My invention consists primarily in a combination which consists of a thread cutting device, a train of mechanism connecting them, and a pawl which is inserted in this train of mechanism and is tripped from its ratchet as soon as the knife cuts the thread.

My invention further comprises other details hereinafter set forth.

In the accompanying drawings, Figure 1 is a general front view of a shoe sole sewing machine, showing only so much as is necessary to understand the working of my device. Figs. 2 and 3 show details of the cutting device. Fig. 4 is an end view of the pulley upon the rock-shaft which carries the thread cutting knife. Fig. 5 is a section of Fig. 4 through the line Y. Z.

In the figures A is the framework of the machine; R the shaft on which is mounted the rocking arm, C, shown full size in Fig. 3. To the end of this arm is attached the knife *k*, which cuts off the thread *t*. On the outer end of the shaft R is the ratchet wheel T. Inside the ratchet is a loose pulley P, with two steps. On the outer end of this pulley P is the pawl V, which engages the ratchet wheel T, and is released by coming in contact with the supporting piece W of the shaft R. The strap *b*, winds over the larger step of the pulley P, and is attached at its lower end to the rocking arm D, which is connected by the rod H to a treadle M. Attached to the outer end of the rocking arm D is the slotted connecting rod Z, which connects it with the lever L, that lifts the presser rod E and its connections.

S' is the spring which pulls back the knife *k*; X, the spring which pulls back the pulley and pawl by means of the strap.

It is obvious that many other sliding or yielding connections could be substituted for the slotted piece Z with good results; and that means of actuating the device by hand could be attached by any skilled mechanic.

When I desire to use the thread cutter, I stop the machine with the needle near its

highest point. I then press upon the treadle M, which lifts the presser rod and its connections. The rocking arm D moves downward. The strap *b* unwinds from the pulley P, and swings the knife *k* against the thread. Immediately after the pawl V strikes the supporting piece W, and is tripped from the ratchet T. The spring S' then pulls the knife *k* back to its original position, where it will be out of the workman's way. The pulley P continues to revolve as long as the treadle moves downward; when it is released, the spring X pulls it back to its original position. When for any reason I wish to raise the pressure rod without moving the thread cutter, I press down on the lever L, and the slot in the piece Z permits it to move down the distance desired.

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

1. A thread cutting attachment for a shoe sole sewing machine consisting of a rock-shaft, means of imparting motion thereto, a knife vibrating with the rock shaft and so adjusted that it is capable of swinging beneath the needle when the needle is at the upper part of its stroke, a ratchet and pawl connection between the rock-shaft and its source of motion, means of tripping the pawl when the knife has swung far enough to cut the thread, and a spring which lifts the knife to its original position when the pawl is released, all combined with each other as and for the purpose specified.

2. The combination of a rock-shaft a vibrating arm mounted thereon, a thread cutting knife attached to the arm, a ratchet wheel mounted upon the shaft, a treadle, a loose pulley on the shaft, means of connection between the pulley and treadle, a pawl on the pulley which is in working relation with the ratchet wheel, a stop which trips the pawl from the ratchet wheel, a spring which pulls the rock-shaft back when released, and a spring which opposes the action of the treadle on the pulley, all as set forth.

In witness whereof I have hereunto set my hand this 21st day of May, 1892.

VERTRUDE P. BUCK.

Witnesses:

OCTAVIA BUCK,
CARRIE L. KEYES.