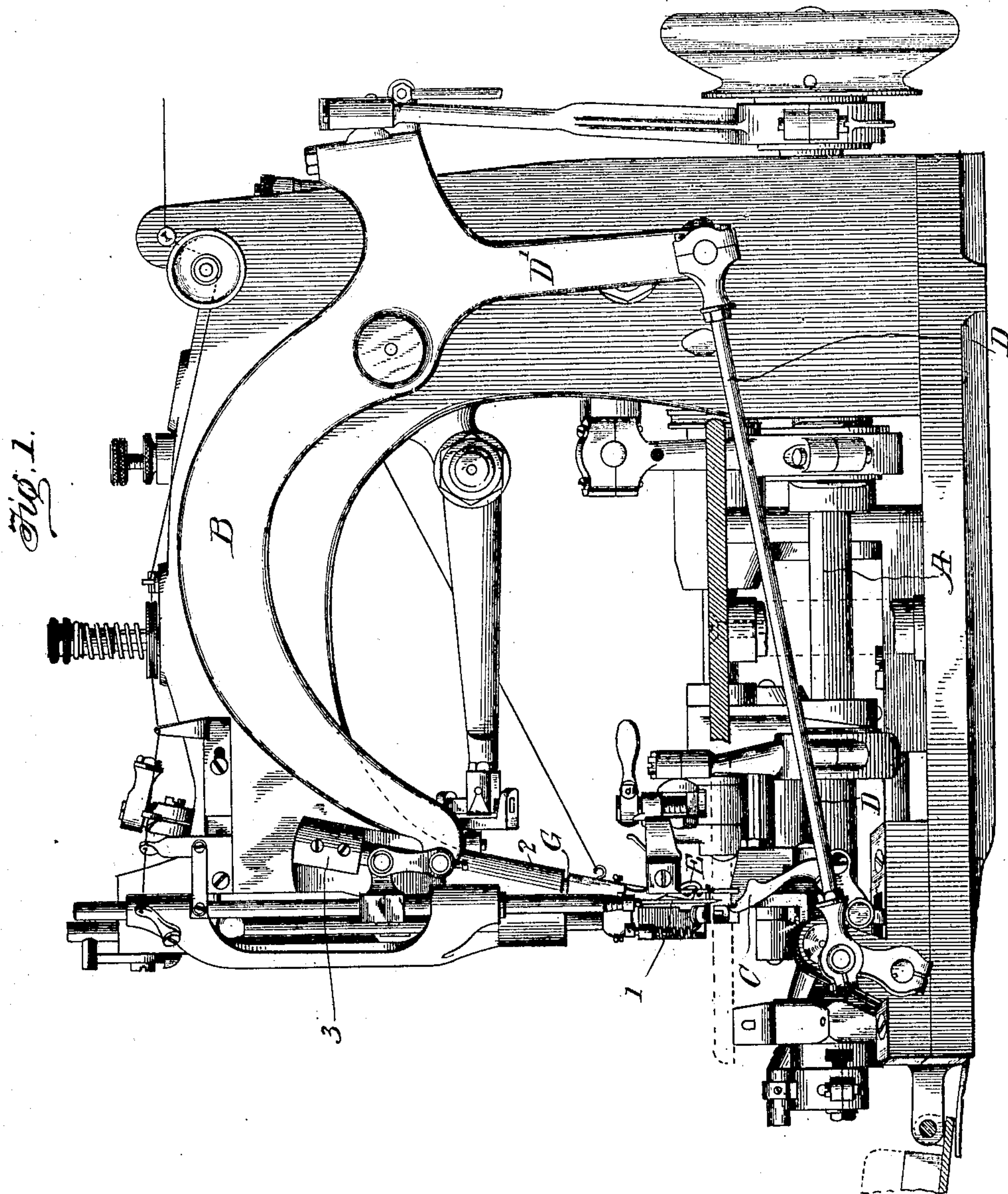


L. ONDERDONK.  
OVERSEAMING MACHINE AND LOOPER MECHANISM THEREFOR.  
APPLICATION FILED NOV. 9, 1901.

920,170.

Patented May 4, 1909.  
3 SHEETS—SHEET 1.



WITNESSES:

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Fig. 2.

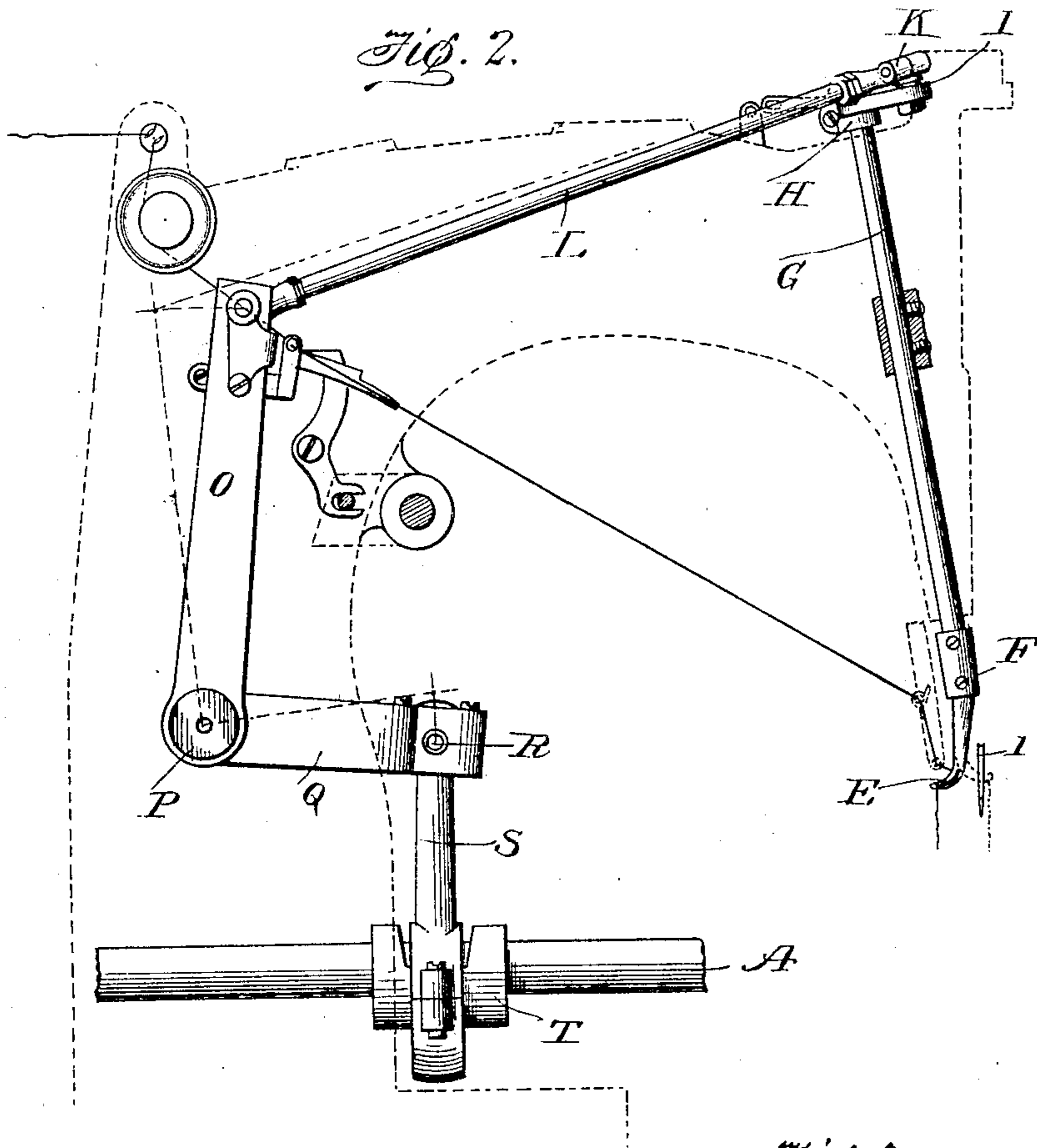
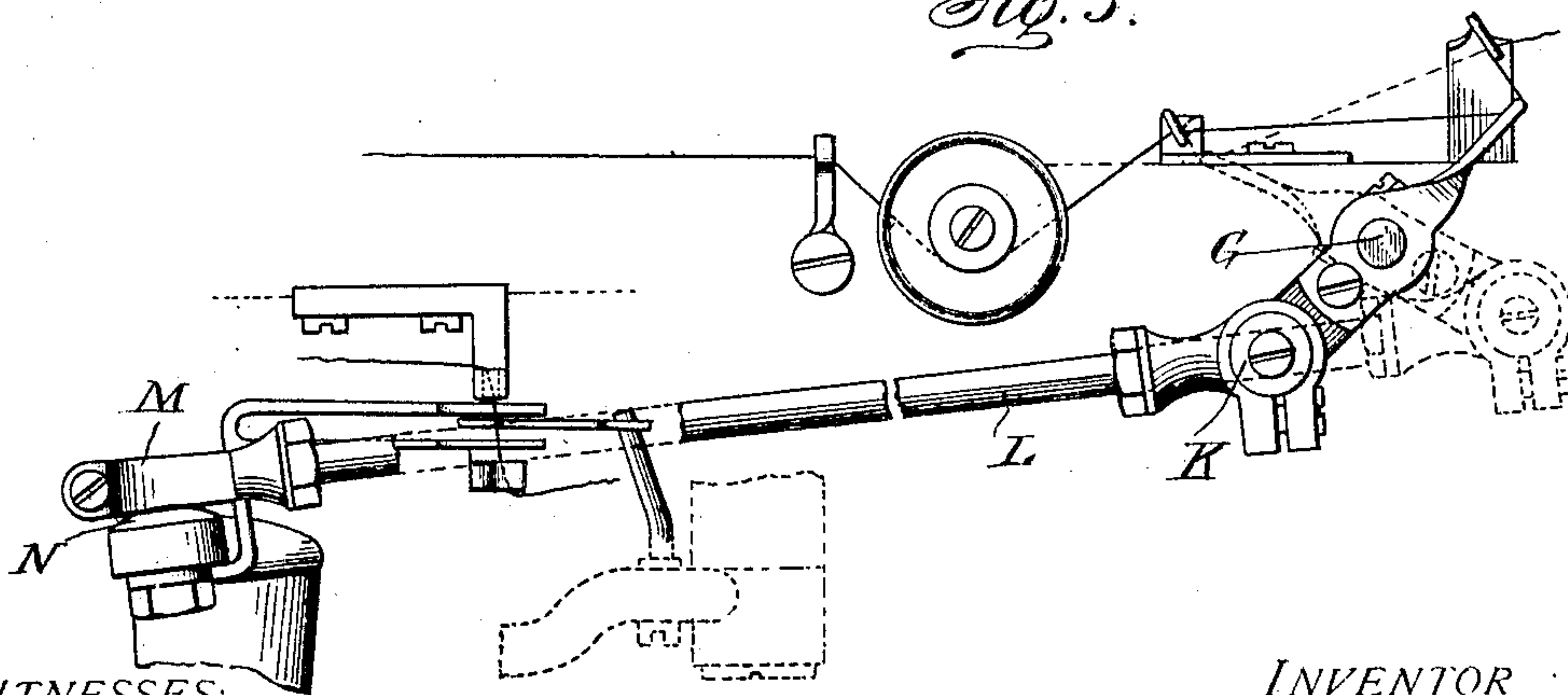


Fig. 3.



WITNESSES:

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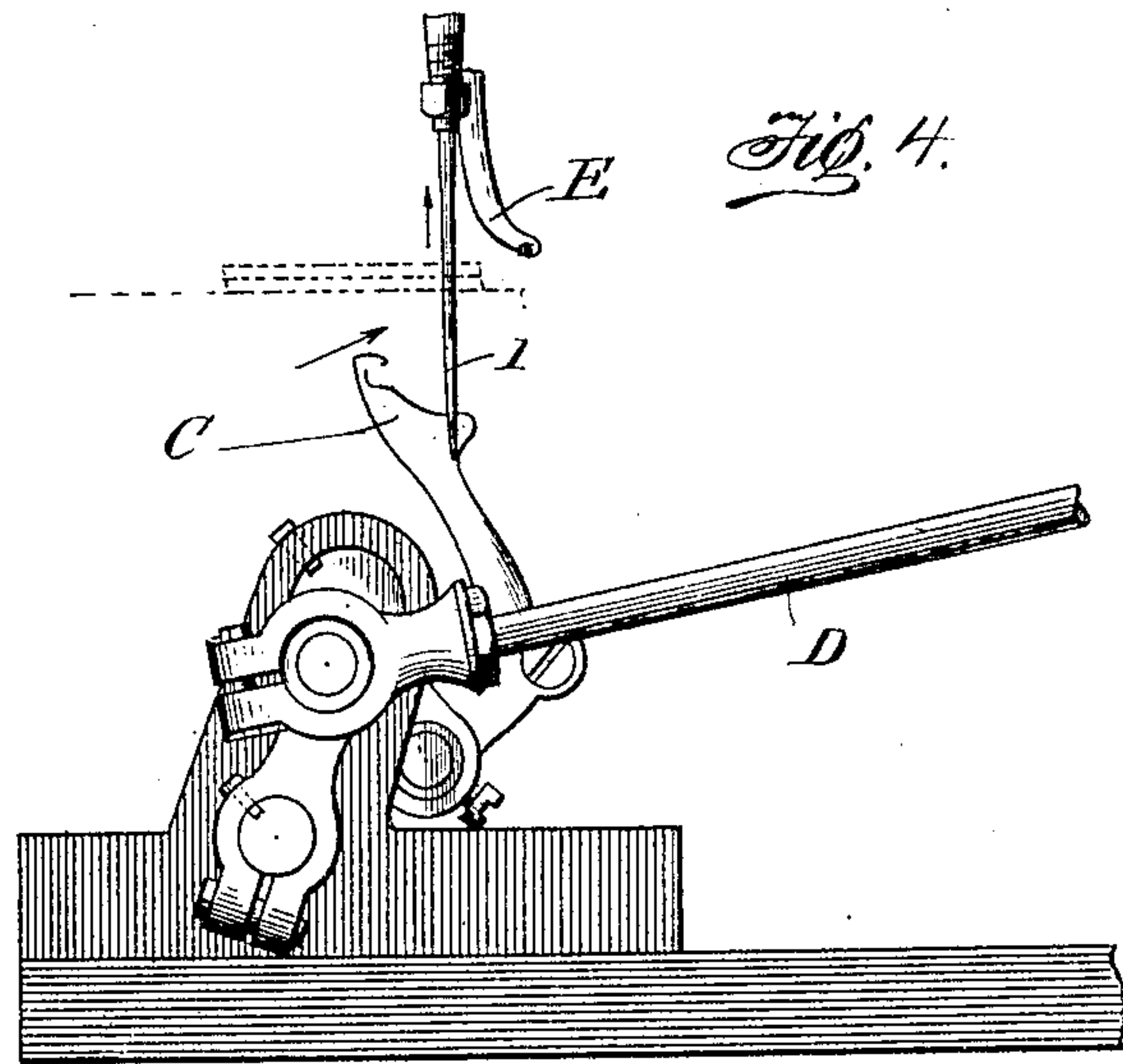
BY

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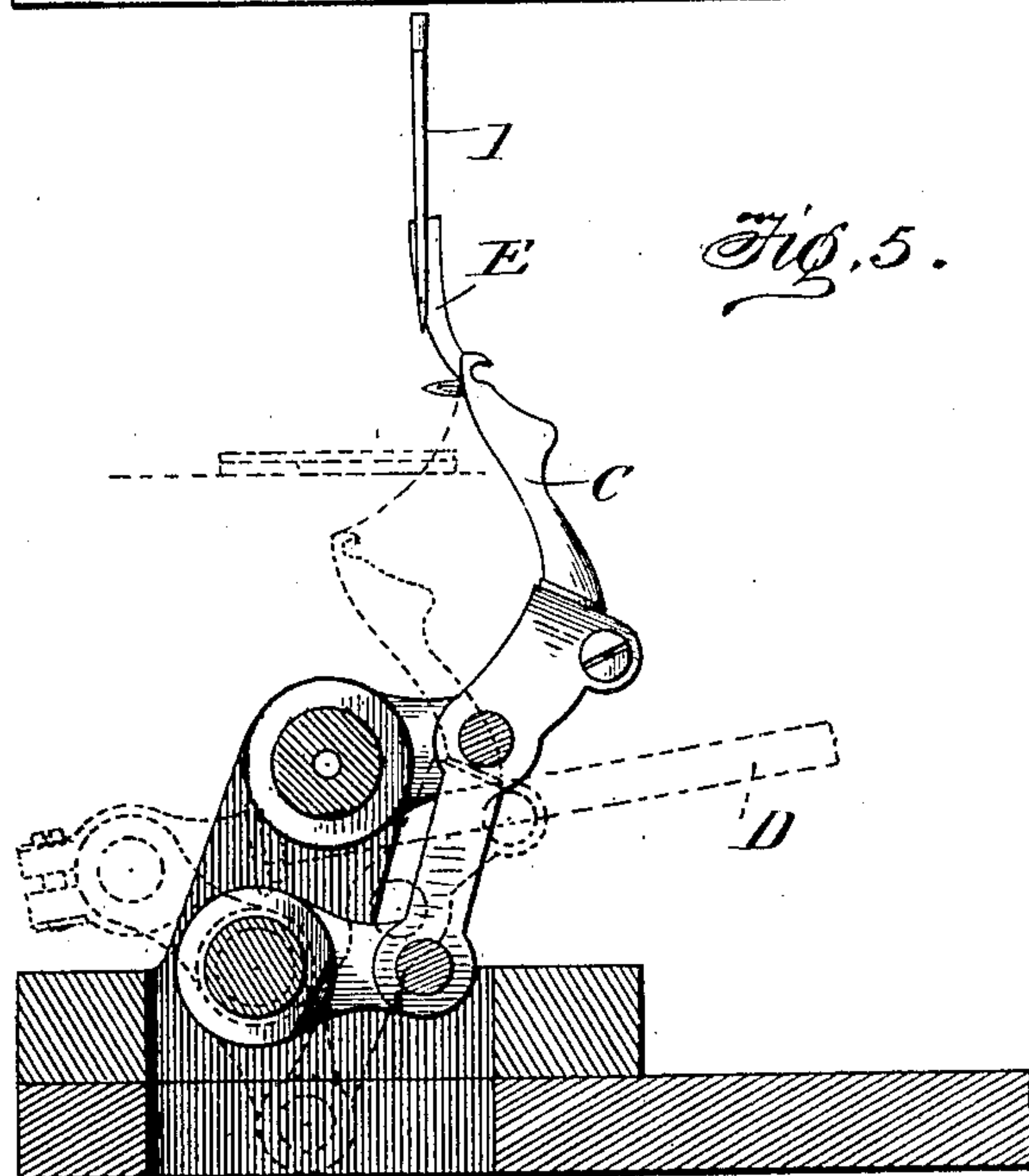
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*Fig. 4.*



*Fig. 5.*

WITNESSES:  
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# UNITED STATES PATENT OFFICE.

LANSING ONDERDONK, OF NEW YORK, N. Y., ASSIGNOR TO UNION SPECIAL SEWING MACHINE CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## OVERSEAMING-MACHINE AND LOOPER MECHANISM THEREFOR.

No. 920,170.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed November 9, 1901. Serial No. 81,761.

*To all whom it may concern:*

Be it known that I, LANSING ONDERDONK, a citizen of the United States, residing at New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Overseaming-Machines and Looper Mechanisms Therefor, of which the following is a description, reference being had to the accompanying drawing, and to the letters and figures of reference marked thereon.

My invention relates to an improvement in sewing machines, and especially to machines for making an over edge stitch. In an application filed by Russel G. Woodward and myself on the 9th day of November, 1901, Serial No. 81,772, we have shown, described and claimed, an overseaming machine of which this present invention forms a part.

The object of the invention is to provide a novel and effective looper operating mechanism for use on overseaming machines, particularly of the type shown, which looper mechanism is supported entirely above the bed plate of the machine, and coöperates with the reciprocating thread-carrying needle, and a spreader or looping hook which takes the loops of needle thread below the cloth plate, and carries them up over the edge of the throat plate into position to allow the looper to pass through the same, and to carry loops of its own thread into position to be engaged by the needle in its next descent.

The invention consists primarily of an overseaming sewing machine, including a thread-carrying needle, with means for operating it, a spreader or looping hook arranged to seize a loop of needle thread, and carry it around and above the edge of the throat plate, and a looper arranged and operating entirely above the bed plate and having a forward and backward oscillatory movement about an axis inclined from the vertical, whereby it moves in a curved path inclined to the axis of the cloth plate and has imparted to it the necessary movements to enable it to take the needle loop, and also carry its own thread into position to be engaged by the needle in its next descent, this inclined mounting of the looper axis enabling me to dispense with a bodily transverse movement of the looper, to accomplish the proper clearance of the spreader and the

needle, and to bring the looper around from the rear of the needle to the front.

Secondly, the invention consists in the means for imparting movements to the looper, and, finally, in the matters herein- after described and referred to in the appended claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a front view of a portion of a sewing machine embodying my invention; Fig. 2 is a rear skeletonized view of a sewing machine, illustrating the connections for operating the looper; Fig. 3 is a plan view of Fig. 2; and Figs. 4 and 5 represent the various positions of the three coöperating stitch-forming elements, at the extremes of movement of the looper.

In these drawings, the thread-carrying eye-pointed needle 1, is of ordinary construction, and operates in the usual manner from the driving shaft A, through the needle lever B.

C represents a looping hook or spreader supported on double cranks, and operated by a pitman connection D from the needle lever extension D'. This spreader has a hook at its upper end, and reciprocates in the manner shown in the drawings, to catch a loop of needle thread, carrying it to one side, and up above the throat plate into position to be entered by the looper E, as it moves from the rear toward the front of the needle in a curved inclined path.

The looper E is a thread-carrying looper, and its upper end or shank is secured in a collar F clamped to the lower end of the shaft G, which is arranged at an inclination to the cloth plate, and slightly off the vertical, passing through openings in the head of the machine, which form bearings 2, 3, for it.

At its upper end, the looper supporting shaft is fitted into the socket of a clamping head or block H, provided at its upper end with a ball stud I, over which loosely fits a head K, to which one end of the pitman rod L, is attached. This pitman rod K, at its opposite end is screwed into a socket on a head M fitting a ball stud N, carried upon the end of the vertical arm O of the bell crank lever, pivoted at P to the machine standard. The horizontal arm Q of said bell crank lever carries a ball stud, upon which is fitted a head R, upon the upper end



of the connecting rod S, which embraces the eccentric T, upon the driving shaft of the machine.

In the rotation of the driving shaft, the inclined shaft which supports the looper is oscillated, carrying the looper from a point in rear of and to one side the needle, around in a curved path inclined to the cloth plate, through the needle loop which has been brought by the spreader or looping hook up into the path of said looper and around in front of the needle, so that the needle in its descent passes through the loop carried on the looper, thus making an over-edge stitch.

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

1. In an overseaming sewing machine, the combination with the needle and spreader reciprocating across the line of feed, and means for operating the latter to cause it to take a loop of needle thread and carry it above the line of the work plate, an upwardly extending shaft inclined to the work plate, mounted in bearings on the machine frame, and means for connecting said inclined shaft to the driving shaft, whereby the same is oscillated, and a looper carried on the lower end of said inclined shaft, whereby when the shaft is oscillated, the looper moves in a single plane from a point in rear to a point in front of the needle; substantially as described.

2. In an overseaming sewing machine, the combination with the needle and spreader reciprocating across the line of feed, and means for operating the latter to cause it to

take a loop of needle thread and carry it above the line of the work plate, an upwardly extending shaft inclined to the work plate, mounted in bearings on the machine frame, and means for oscillating said inclined shaft, comprising connections from its upper end to the driving shaft, and a looper carried on the lower end of said inclined shaft, whereby when the shaft is oscillated, the looper moves in a single plane from a point in rear to a point in front of the needle; substantially as described.

3. In an overseaming sewing machine, in combination with the needle and spreader reciprocating across the line of feed, with means for operating the latter to cause it to take a loop of needle thread, carry it above the line of the work plate, an upwardly extending shaft inclined to the cloth plate, and mounted in bearings on the machine frame, connected at its upper end, through operative connections, with the driving shaft, said connections including a bell crank lever pivoted to the machine frame, connections between the upper end thereof and the upper end of the inclined shaft, and connections between the opposite end of said bell crank lever and the driving shaft and a looper carried on the lower end of said inclined shaft; substantially as described.

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

LANPING ONDERDONK.

Witnesses:

W. H. MOYER,

M. VAN WAGNER.