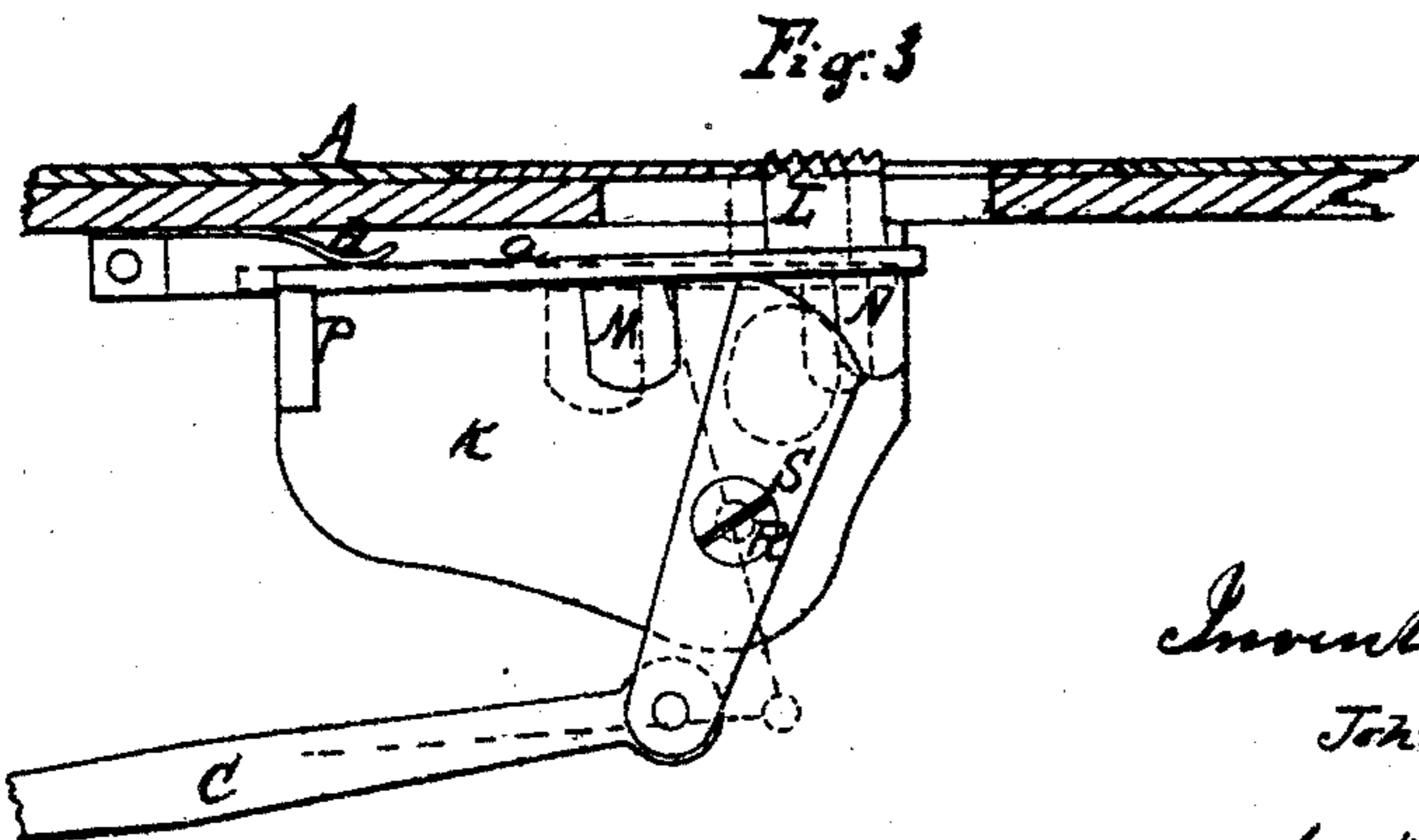
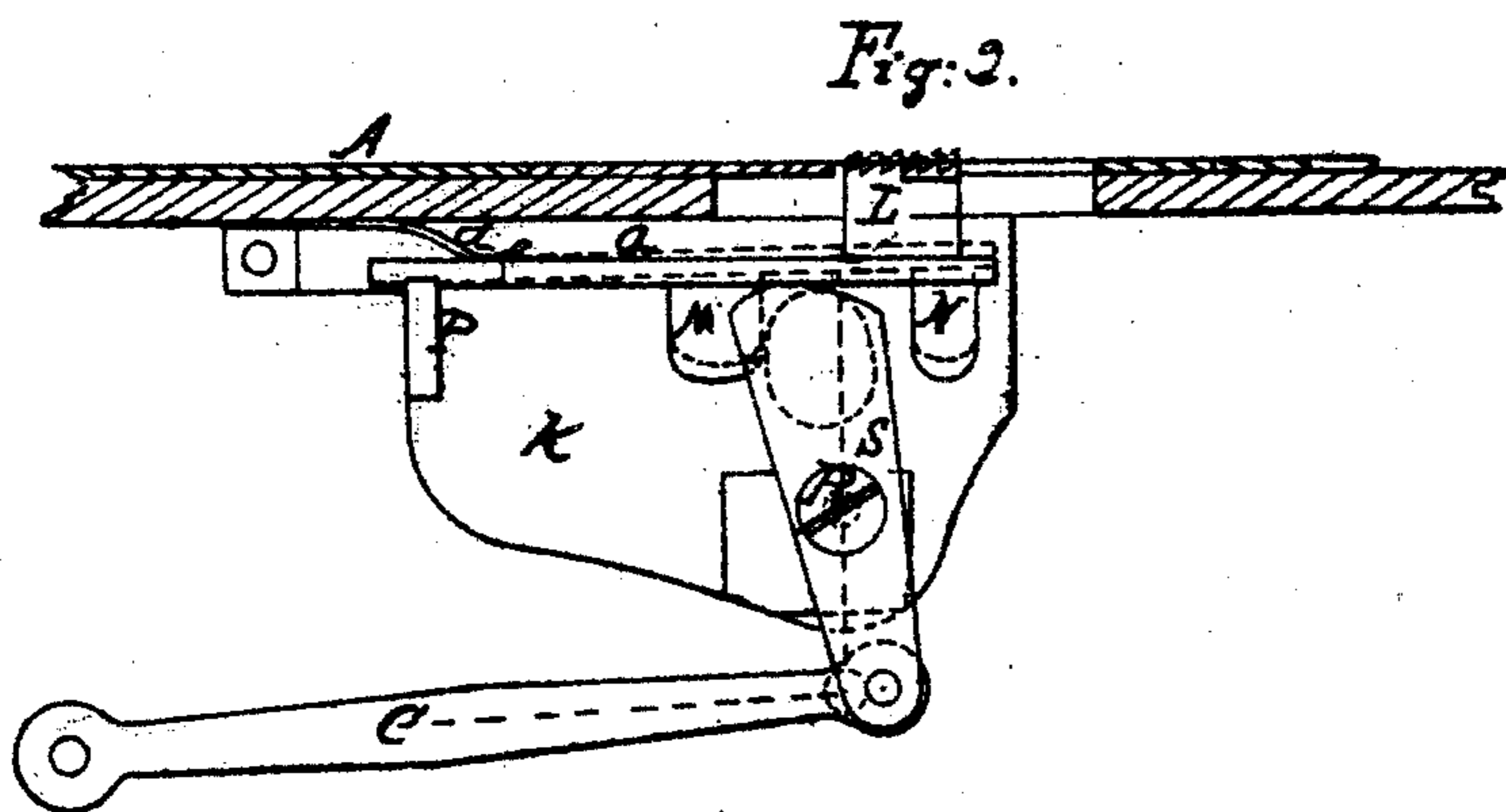
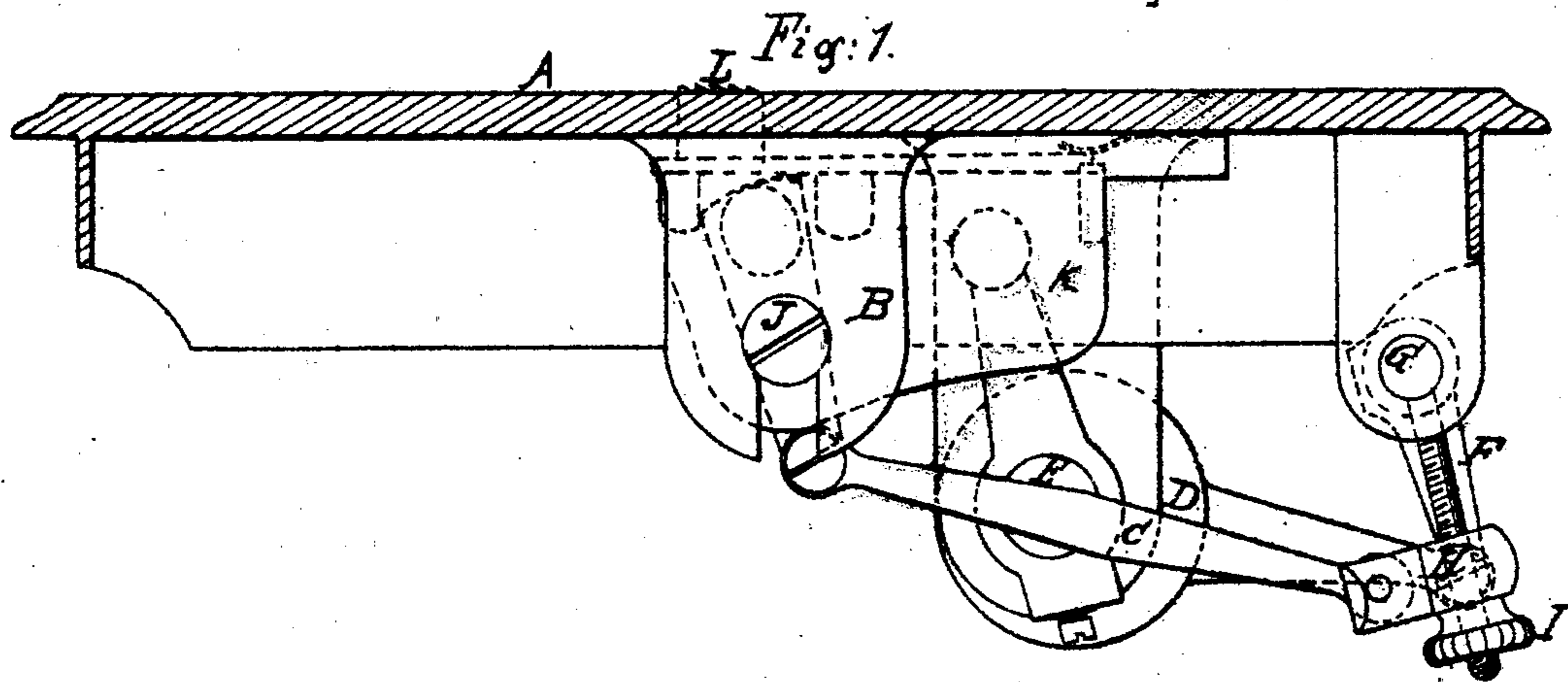


J. A. Minor
Sewing Mach.

N^o 76340.

Patented Apr. 7. 1868.



Witnesses

John H. Shumway
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JOHN A. MINOR, OF MIDDLETOWN, CONNECTICUT.

Letters Patent No. 76,340, dated April 7, 1868.

IMPROVEMENT IN FEEDING-MECHANISM FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN A. MINOR, of Middletown, in the county of Middlesex, and State of Connecticut, have invented a new Improvement in Sewing-Machines; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a sectional view of a sewing-machine plate with my improvement attached.

Figure 2, a reversed view, showing the opposite side in one position; and in

Figure 3, the same view in another position.

This invention relates to an improvement in that class of sewing-machines which employ a "wheel-feed." In such machines it is well known that, while for direct or straight seams the wheel-feed is preferable to the drop-feed, it is very difficult to turn a short corner or right angle without greatly retarding or entirely stopping the movement of the machine. Thus, while the machine with the wheel-feed is most desirable for certain classes of work, for other classes it is impracticable, thus offering a series of objections to this class of machines. By my invention this difficulty is entirely overcome, and it consists in the construction and arrangement of a drop-feed on a plate, independent of the machine, and yet so as to be attached in place of the wheel-feed, and so that either the wheel or drop-feed may be used by simply taking out the one and inserting the other.

In order to the clear understanding of my improvement, I will proceed to describe the same as illustrated in the accompanying drawings.

A is the cloth-plate; B, the ear or lug, to which the wheel-feed is attached; C, the connecting-rod, for operating the feed, which is moved by an eccentric, D, on the driving-shaft E, operating on the lever F on the shaft G, to which the connecting-rod C is adjustably attached by a loop, H, and adjusting screw, I, all in the usual and well-known manner of wheel-feed machines. The attachment of the connecting-rod C to the wheel-feed, and its operation, are too well known to require explanation. I need only say that the screw J serves to secure the wheel-feed into the lug B, when placed therein, and, by the removal of the said screw J, and disconnecting the levers from the rod C, the wheel is quickly and easily removed. I construct a plate, K, to be inserted in place of the wheel-feed, and so as to be secured to the lug B by the same screw, J, as seen in fig. 1. Upon the said plate K, I arrange a sliding bar, *a*, having formed upon one end the common toothed feed, L, and from below the bar *a*, I extend downward ears M and N, the tail of the bar resting on a support, P, and borne down by a spring, *d*, attached to the plate K. On a bearing, R, on the plate K, is pivoted a lever, S, its upper end forming a cam to support the bar *a*, and give to the feed its up-and-down movement, the said lever being actuated, through the connecting-rod C, in like manner as the lever on the wheel-feed. Upon the lever S is a projection, denoted in broken lines, extending between the two lugs M and N on the plate A, and narrower than the space between the said lugs, as denoted in figs. 2 and 3.

The operation of this arrangement is as follows: When the lever S is turned to the feed, as from the position denoted in fig. 2, to that in red, same figure, the centre line only of the lever and connecting-rod being represented, it simply raises the feed, as denoted in red, and, when so raised, the projection on the lever has moved so as to come in contact with the lug N. Continuing its movement by bearing against the said lug, the feed is carried forward to the position denoted in fig. 3, and, on the return of the lever S to the position denoted in red, fig. 3, the feed is dropped, then carried back to the position denoted in red, ready for a second feed, and so continuing.

When the wheel-feed is preferred, remove the plate K, detached from the connecting-rod C, which removes all that pertains to the drop-feed, then insert the wheel-feed in its place. Thus the person may have both feeds, if desired. The length of the feed is adjustable by the nut I in the same manner as the wheel-feed.

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

The arrangement, on the independent adjustable plate K, of the lever S and the feed-dog L, substantially as described and for the purpose specified.

JOHN A. MINOR.

Witnesses:

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S. A. ROBINSON.