

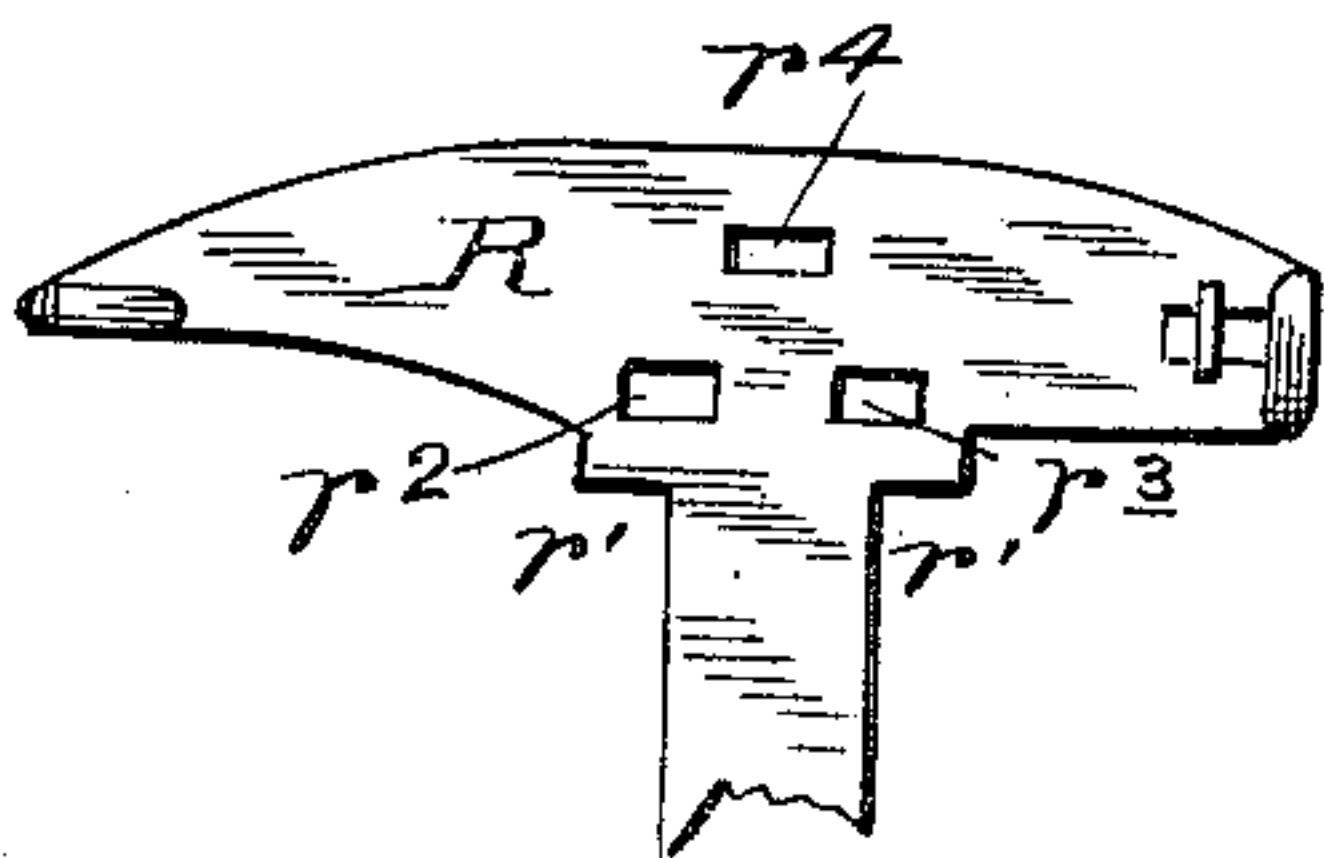
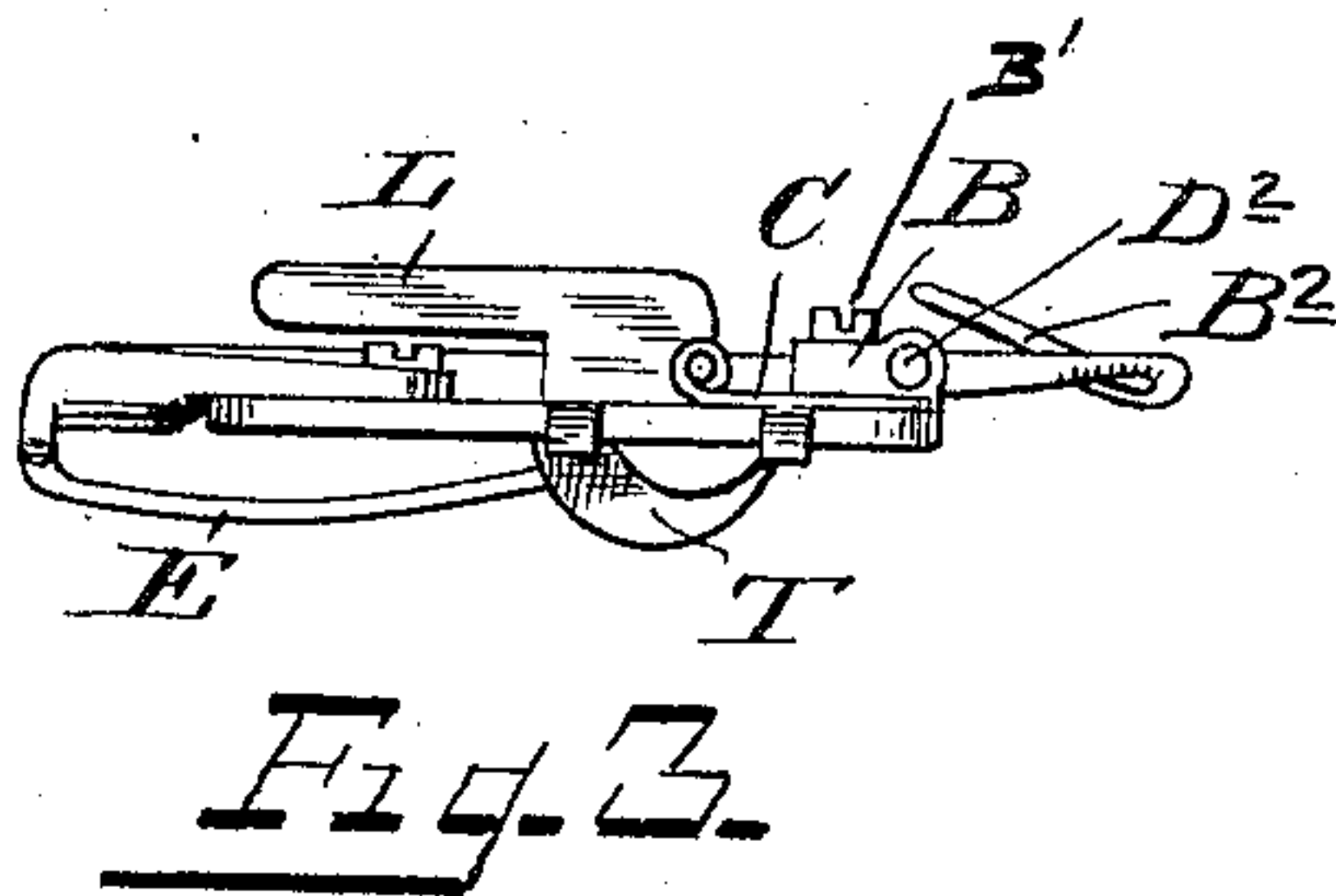
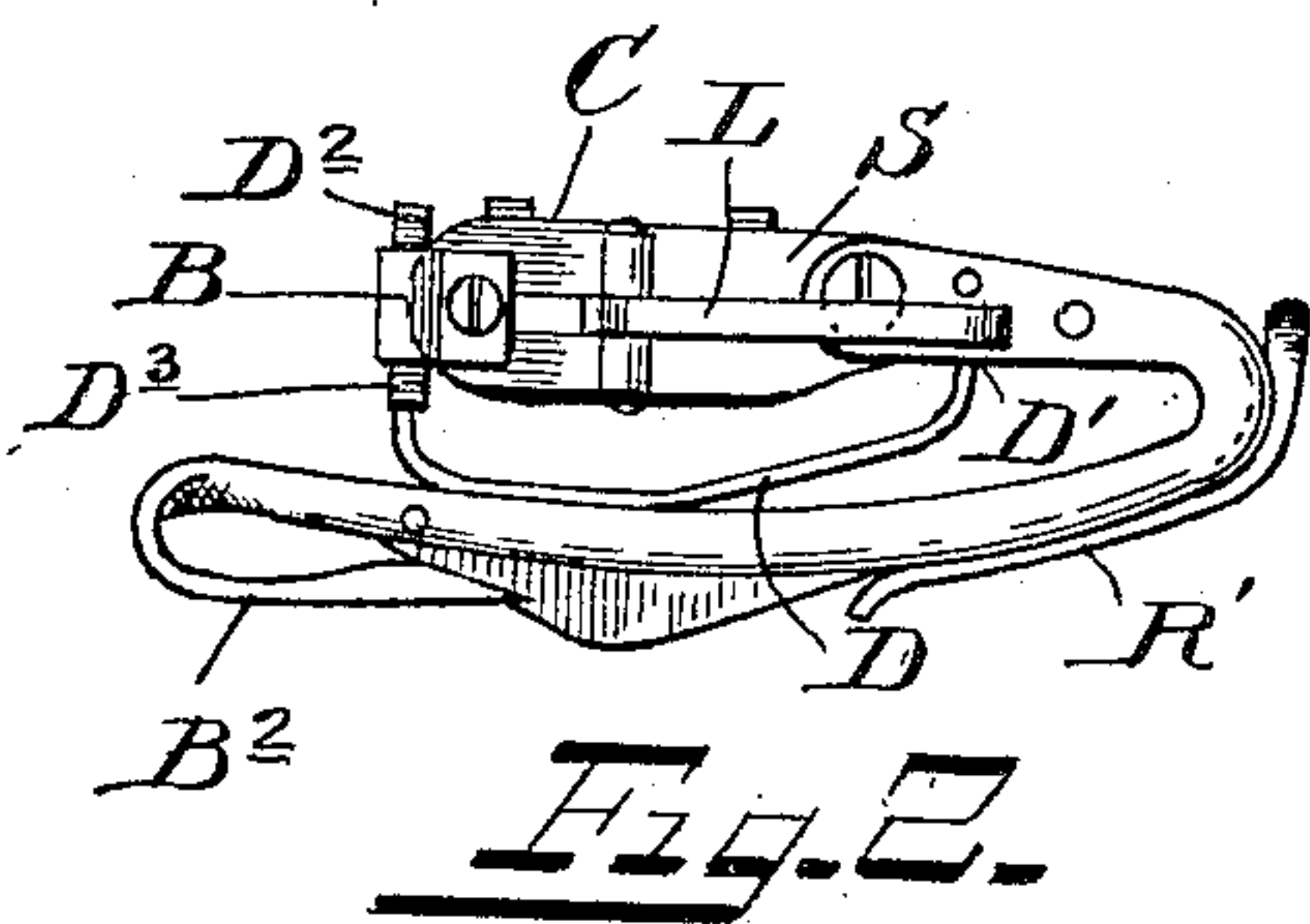
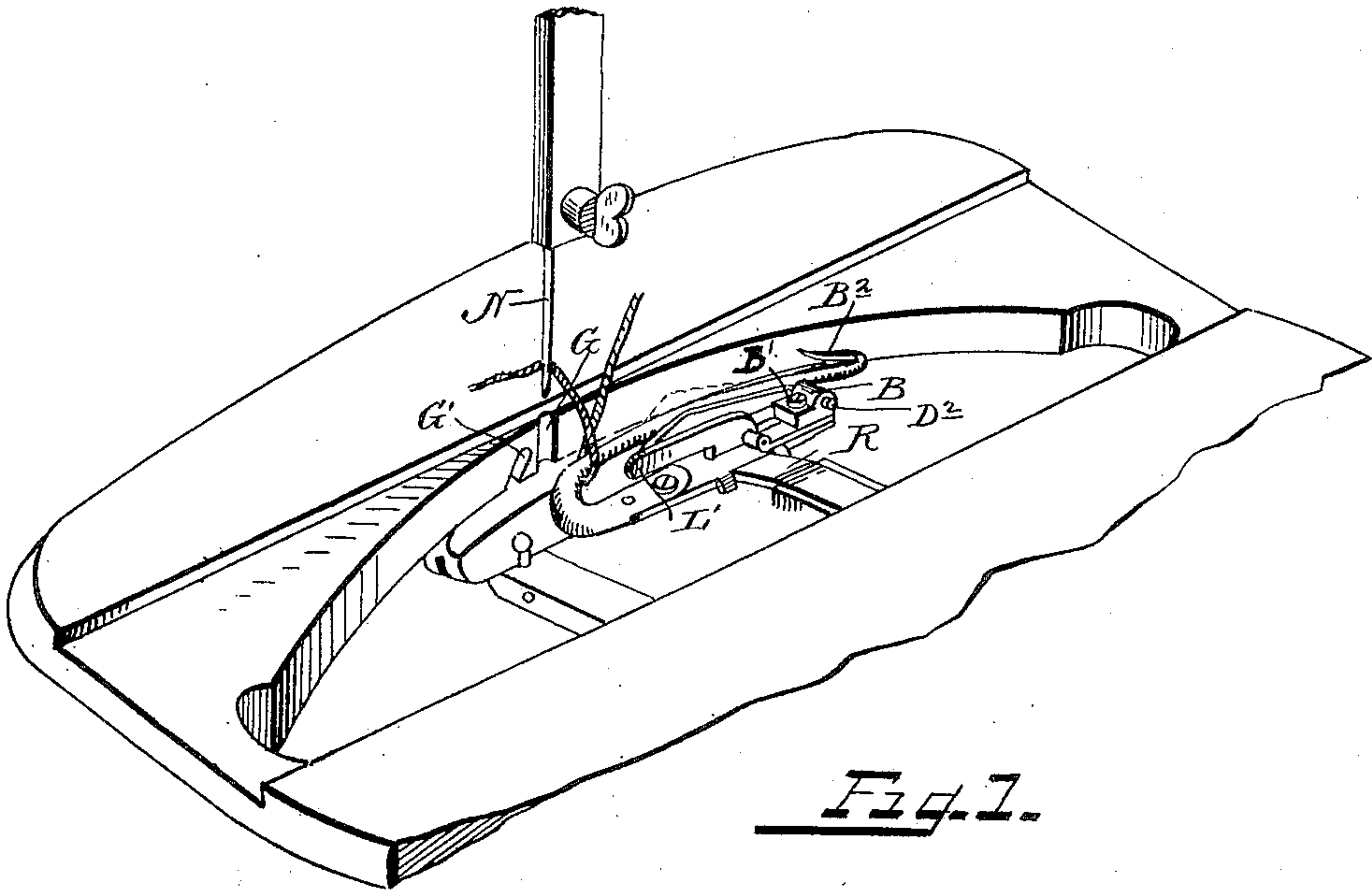
No. 827,642.

PATENTED JULY 31, 1906.

A. G. LAMB.

CHAIN STITCH LOOPER FOR LOCK STITCH SEWING MACHINES.

APPLICATION FILED MAR. 27, 1905.



WITNESSES:

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Fig. 4.

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UNITED STATES PATENT OFFICE.

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CHAIN-STITCH LOOPER FOR LOCK-STITCH SEWING-MACHINES.

No. 827,642.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed March 27, 1905. Serial No. 252,249.

To all whom it may concern:

Be it known that I, AMHERST G. LAMB, a citizen of the United States, residing at Torrington, in the county of Litchfield, State of Connecticut, have invented certain new and useful Improvements in Chain-Stitch Loopers for Lock-Stitch Sewing-Machines, of which the following is a description, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention relates to chain-stitch loopers which are to be substituted for the shuttle of a lock-stitch sewing-machine, whereby chain-stitches may be produced.

I have described in my copending application, Serial No. 252,248, filed of even date herewith, the complete looper to which this invention particularly relates.

My invention resides in the improved means for adjusting the parts of the looper to different-sized threads, all of which will be particularly pointed out in the description and set forth in the claims.

In the drawings, Figure 1 is a perspective view of parts of a sewing-machine with my improved looper in place. Fig. 2 is a top plan view of the looper. Fig. 3 is a rear side elevation of the looper with the locking-lever in closed position, and Fig. 4 is a fragmentary view of the shuttle-carrier.

The machine in which my invention is embodied is the ordinary oscillating shuttle-machine comprising the usual parts, a detail disclosure of which has not been given, as it is not necessary to understand my present invention.

In the drawings, N is the usual reciprocating needle.

R is the shuttle-carrier, which is provided with slots r^2 , r^3 , and r^4 and also shoulders r' r' . The chain-stitch looper of my invention has lugs which engage the slot r^4 and on each side of the shuttle-carrier shank. The looper consists in a shank that is slotted and carries a locking-lever L, having formed integral thereon a curved tongue T, as clearly shown in Fig. 3. The lever is pivoted at its forward end, and the tongue is curved substantially concentric to said pivot, so that after the parts are properly positioned the lever is turned about its pivot. The tongue T passes down through the opening r^2

and up into the opening r^3 , thus locking the looper rigidly to the shuttle-carrier. This lever has a pivot-pin that is engaged by a keeper C to hold the same in place. The keeper C is secured by a block B and retaining-screw B'.

Rigidly carried by the shank S is a looper-arm, which at its forward end is bent back to form a looper-beak B². Rigidly secured to the looper-arm is a spreader E, which extends underneath said arm and gradually approaches the same until it merges into the arm at a point near the cast-off shoulder, where said spreader is secured to said arm.

R' is a thread-retainer serving to put a slight drag on the thread-loop as it leaves the looper-arm.

The invention in this application resides particularly in the thread-retarder now to be described. The shank of the looper is bored out at D' near where the looper-arm joins the same, and in said opening is rigidly secured an arm D. This arm extends out from the shank and alongside of the looper-arm. This arm D should, however, be spaced nearly a thread thickness from the looper-arm, so that a thread will not be positively held, but merely retarded until the stress on the thread is sufficient to pull the same through. The other end of the arm D enters a socket D³ in a screw D², mounted in the block B. By adjusting the screw D² the position of the member D relative to the looper-arm may be varied, and thus the tension necessary for different-size threads properly regulated.

The operation of my device will be apparent. A loop is taken by the looper-beak B², which is transferred to the looper-arm. The loop passes to the end of the arm, and on its return movement one limb will be retarded by the member D, while the other limb is deflected by the cast-off into a suitable groove G' in the shuttle-race and over the looper-beak. As the loop leaves the looper-arm it encircles the new loop taken by the looper-beak, and thus the stitch is formed.

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

1. The combination with a looper, comprising a looper-arm, a looper-beak and a cast-off, of an adjustable thread-retarder co-

operating with said looper-arm at a point on the opposite side of said arm from the cast-off; substantially as described.

2. The combination with a looper, comprising a shank, a looper-arm, a looper-beak and a cast-off, of a thread-retarder carried by said shank and coöperating with said looper-arm at a point on the opposite side of said arm from the cast-off, and means for
10 adjusting said thread-retarder; substantially as described.

3. The combination with a looper, comprising a shank, a looper-arm, a looper-beak, and a cast-off, of a thread-retarder having
15 one end rigidly connected to said shank and its other end adjustably connected with said shank, whereby the position of said thread-retarder relative to said looper-arm may be adjusted; substantially as described.

20 4. The combination with a looper, com-

prising a shank, a looper-arm, a looper-beak and a cast-off, of a thread-retarder having one end rigidly connected to said shank, and an adjusting-screw carried by the shank and engaging the other end of said thread-re- 25 tarder; substantially as described.

5. The combination with a looper, comprising a shank, a looper-arm, a looper-beak and a cast-off, of a thread-retarder having one end rigidly connected to said shank, and
30 an adjusting-screw carried by said shank and having a socket to receive the other end of said retarder; substantially as described.

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

AMHERST G. LAMB.

Witnesses:

D. HILDRETH,

C. E. MOREHOUSE.