

999,179.

L. ONDERDONK.
TWO NEEDLE SEWING MACHINE.
APPLICATION FILED JUNE 21, 1904.

Patented July 25, 1911.

2 SHEETS-SHEET 1.

Fig. 1.

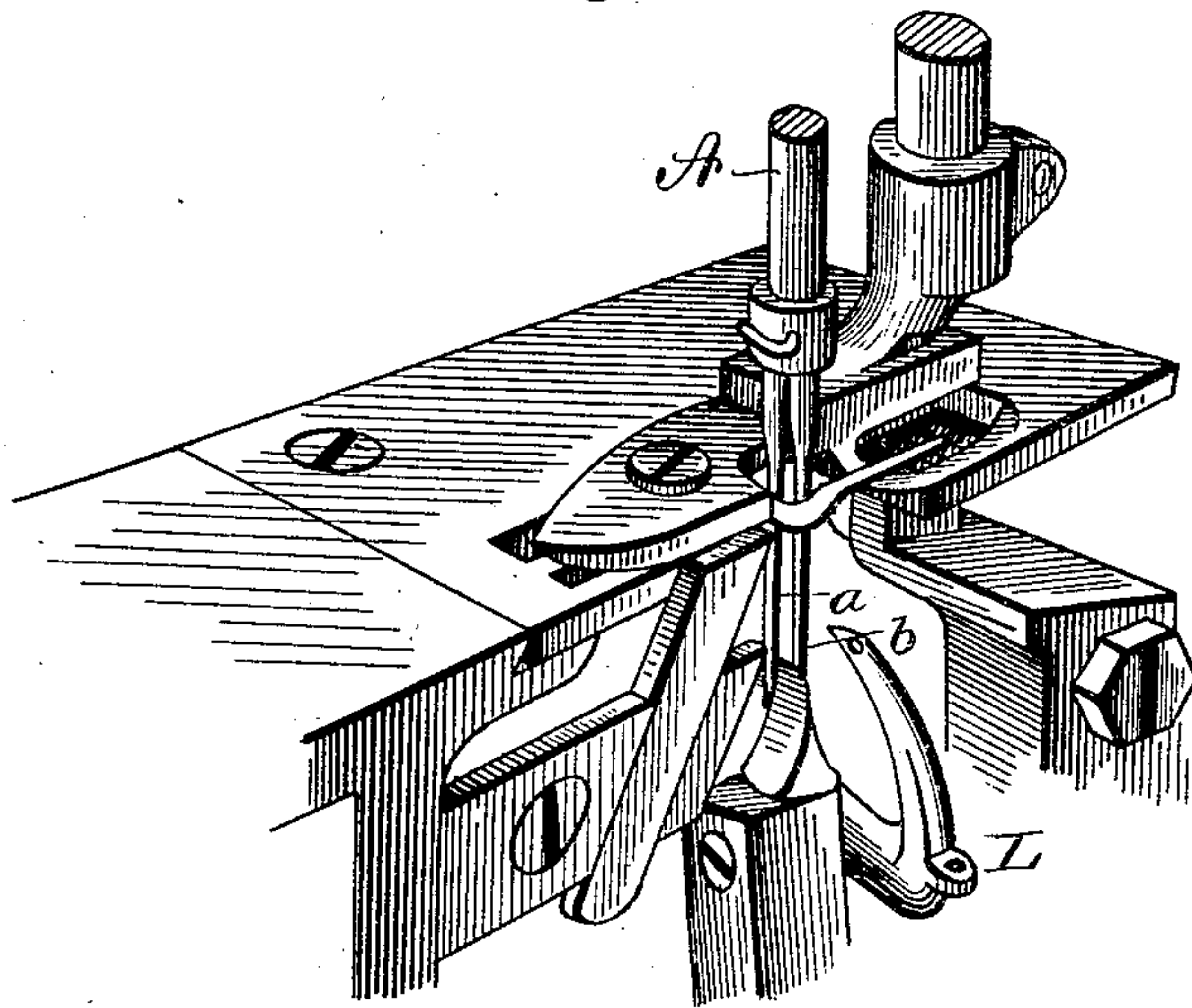
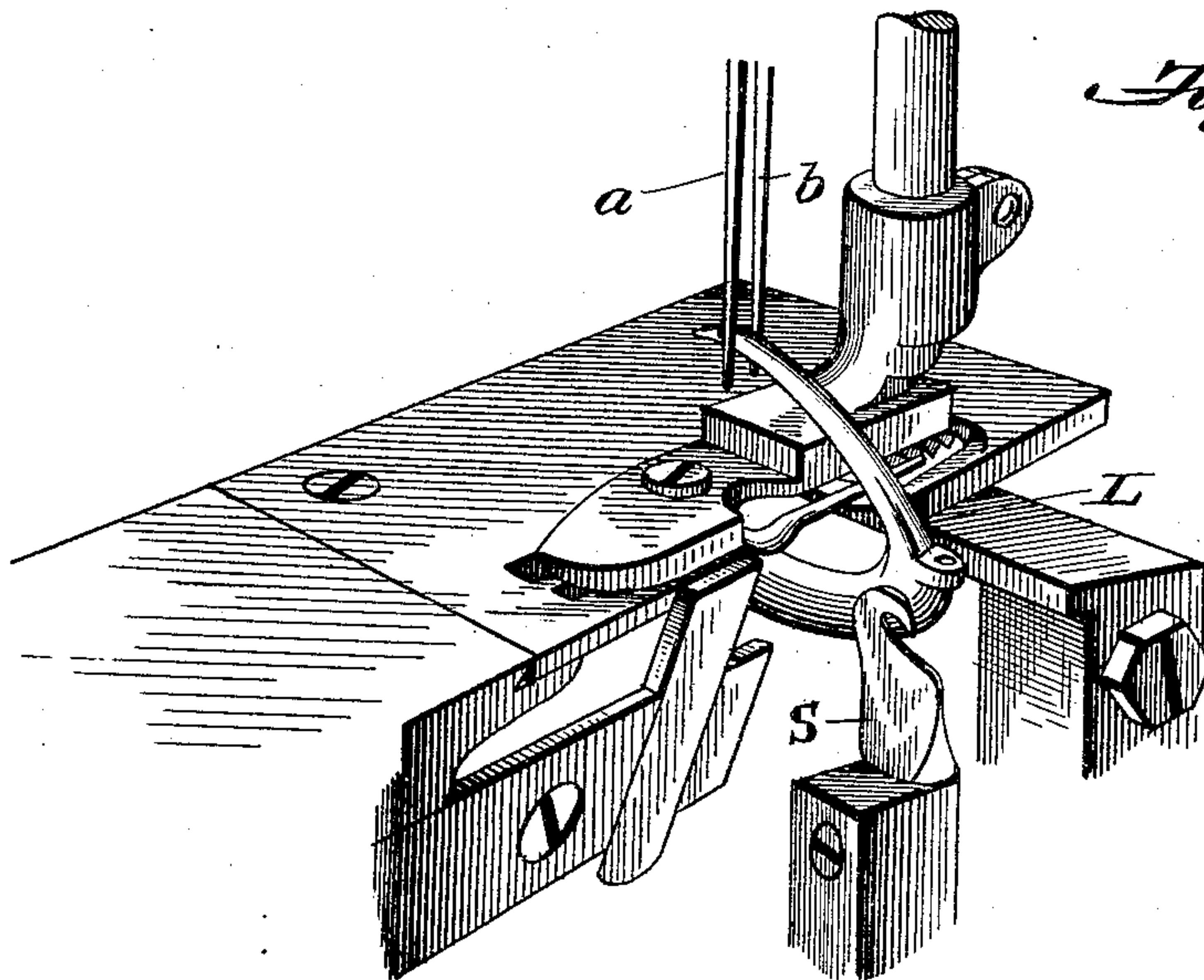


Fig. 4.



Witnesses

*R. A. Boswell,
Albert Pophina*

Inventor

Lansing Onderdonk

By

C. S. Sturtevant

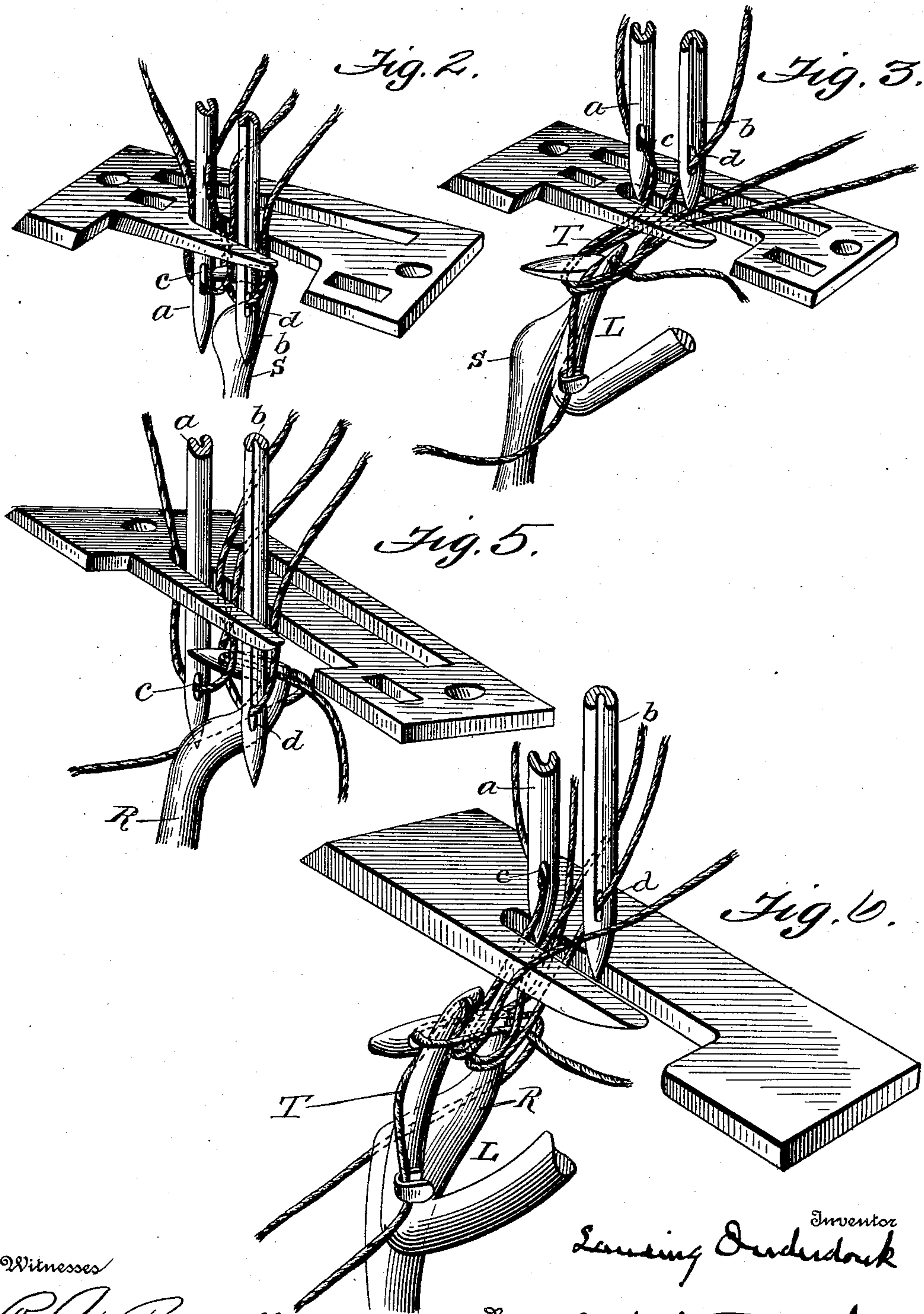
Attorney

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R. A. Boswell
Albert Popkins

By

Inventor
Lansing Onderdonk
C. S. Stuart
Attorney

UNITED STATES PATENT OFFICE.

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

TWO-NEEDLE SEWING-MACHINE.

999,179.

Specification of Letters Patent.

Patented July 25, 1911.

Application filed June 21, 1904. Serial No. 213,515.

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 Two-Needle Sewing-Machines, of which the following is a description, reference being had to the accompanying drawing and to the letters and figures of reference marked thereon.

The invention relates to new and useful improvements in over-edging sewing machines of the Union Special type, as illustrated in the patent to Onderdonk, No. 962,974, granted June 28th, 1910.

An object of the invention is to provide a machine of this type with two needles arranged substantially in line, one behind the other in the direction of the feed, whereby a great amount of thread may be used in the forming of the over-edge seam, which will greatly strengthen the same.

In the drawings,—Figure 1 is a perspective view of a portion of a sewing machine, embodying my invention, illustrating particularly the stitch-forming mechanism and a portion of the trimmer; Fig. 2 is a detail view, showing the positions of the needles, looper and spreader when the spreader is engaging the loops of needle thread; Fig. 3 is a similar view, showing the position of the elements of the stitch-forming mechanism, when the thread-carrying looper is passing up through the loop; Fig. 4 represents the final position; Fig. 5 illustrates a sectional plan view of the two needles, showing the arrangement of the eyes thereof and the loops thrown out thereby; and Fig. 6 represents one position of the stitch-forming devices in making a four-thread stitch.

I have shown in the drawings only so much of the machine as is necessary to illustrate my improvement.

The needle bar *a* is provided with two needles *a* and *b*, which are arranged substantially one behind the other in the direction of feed. These needles are also arranged with their eyes *c*, *d*, set so that the needles may throw out their loops in a direction toward each other, or so as to overlap. The needles are each grooved so that the same may be threaded for throwing out the loops in the manner stated. The needle loops are also in such position relative to one an-

other and the edge of the fabric, that both loops may be caught by a single thread-manipulating implement underneath the fabric. In order that this thread-manipulating implement may enter both of the needle loops, I have provided the same with a single point and said implement is mounted so as to go between the needles, whereby the single point will enter or engage both needle loops. In Figs. 2 and 3 I have shown said thread-manipulating implement as a spreader. This spreader *S*, as clearly shown, is provided with a single point, which goes between the two needles and enters both of the needle loops, and as the needle loops are carried down on to the shank of the spreader, one loop will be placed directly over the other, and said loops will be carried to a point outside of the throat plate of the machine. The threaded looper *L* may then move through both of the needle loops, and as they are held one directly over the other by the spreader, said looper will with certainty enter both loops and carry its thread *T* above the throat plate, where either one or both of the needles may enter into the loop of thread formed by the looper *L*.

In Figs. 5 and 6, I have shown the thread-manipulating device as a thread-carrying implement *R*. Said looper is provided with a single point which enters both of the needle loops, as clearly shown in the drawings. The thread-carrying looper *L*, as shown in Fig. 6, moves through the loop formed by the looper *R* and to a point above the throat plate, where the looper thread *T* may be locked by either of the needle threads.

By providing the lower thread-carrying device or looper with a single point which enters both of the needle loops, I am able thereby to lock both needle loops with the lower looper thread, and thus firmly lock both needle loops in the seam.

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

1. In a sewing machine, the combination with two needles arranged substantially one behind the other in the direction of the feed and arranged to throw out their loops toward each other, of a thread-manipulating device vibrating between the two needles and provided with a single point adapted to engage both loops of the needle thread, with a

thread-carrying device coöperating with said thread-manipulating device and with said needles above the fabric.

2. In a sewing machine, the combination
5 with two needles arranged substantially one behind the other in the direction of the feed and arranged to throw out their loops toward each other, of a spreader vibrating between the two needles and provided with a
10 single point adapted to engage both loops of needle thread and carry said loops out to

one side, with a third thread-carrying device which is adapted to carry its own thread through the loops of needle thread up over the edge of the fabric between the two 15 needles.

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

LANSING ONDERDONK.

Witnesses:

W. L. SWIFT,
E. T. ALLAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
