

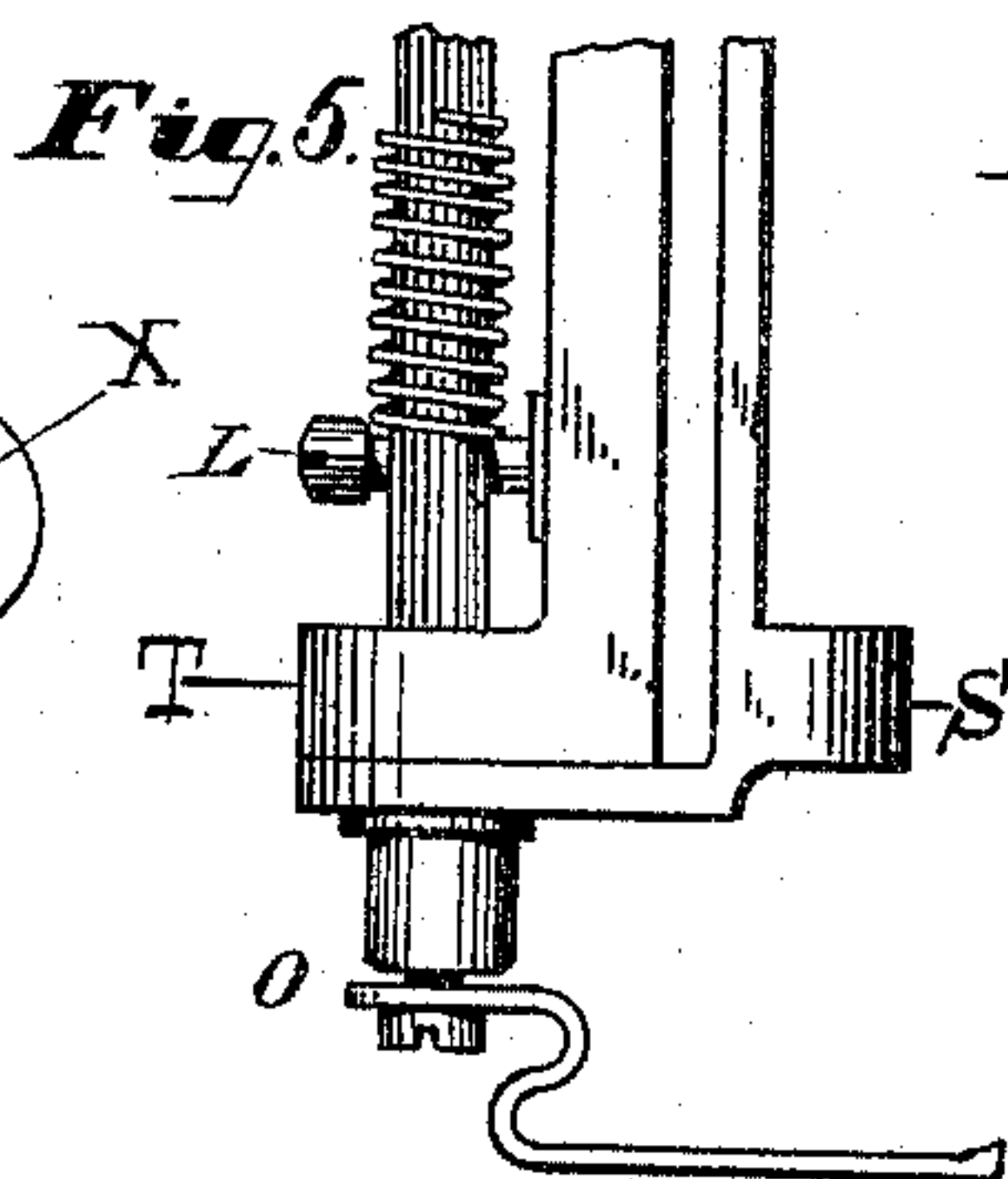
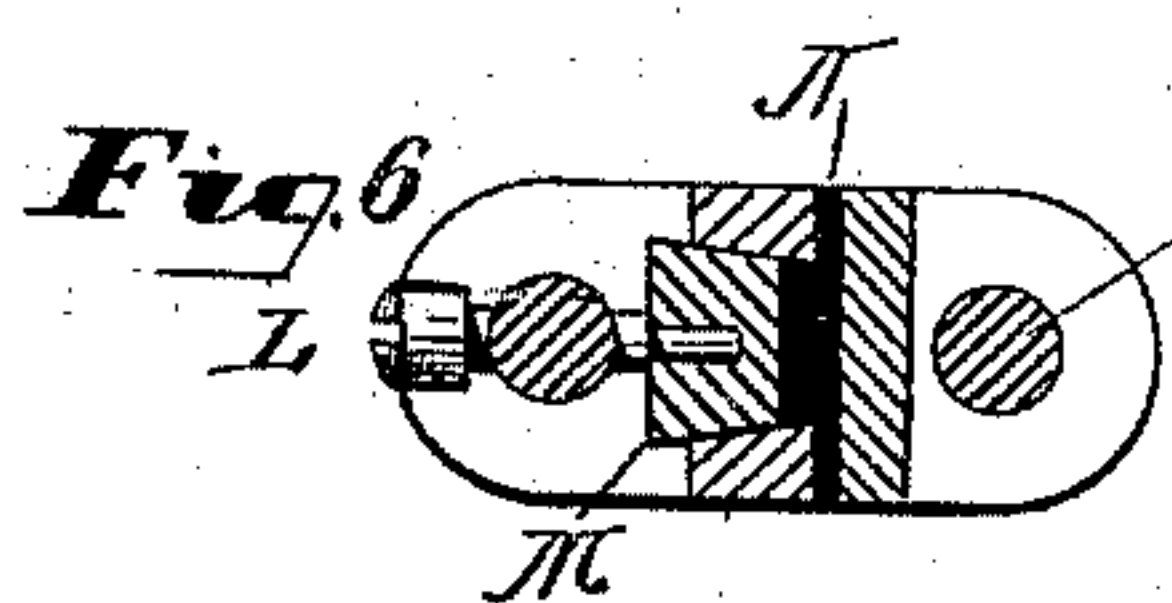
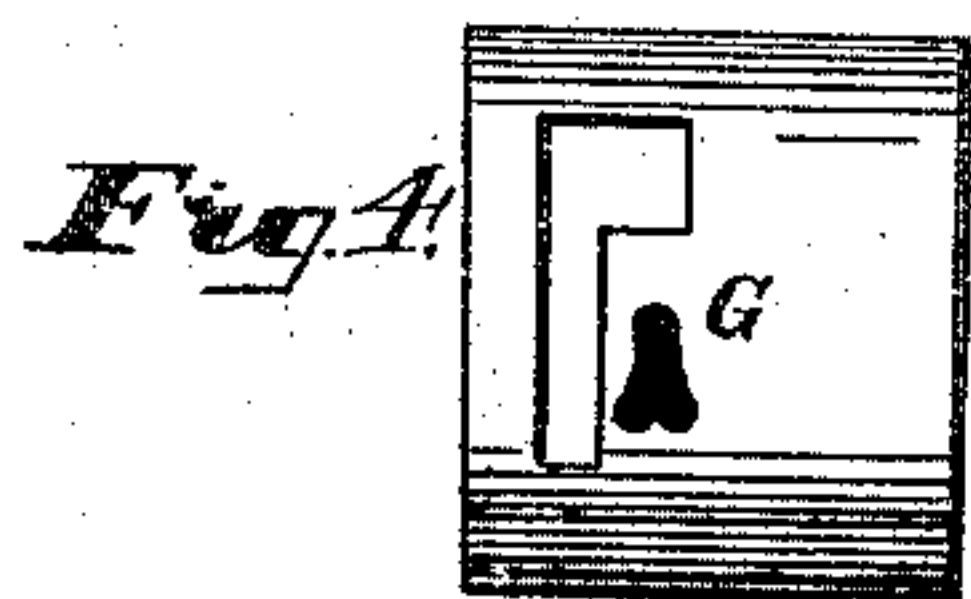
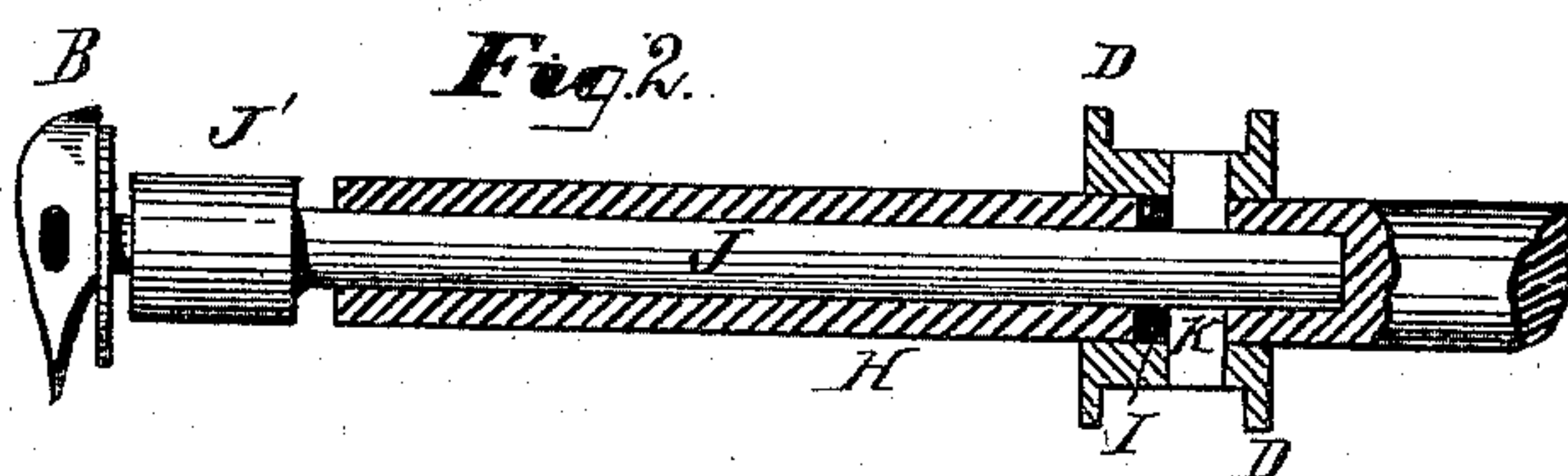
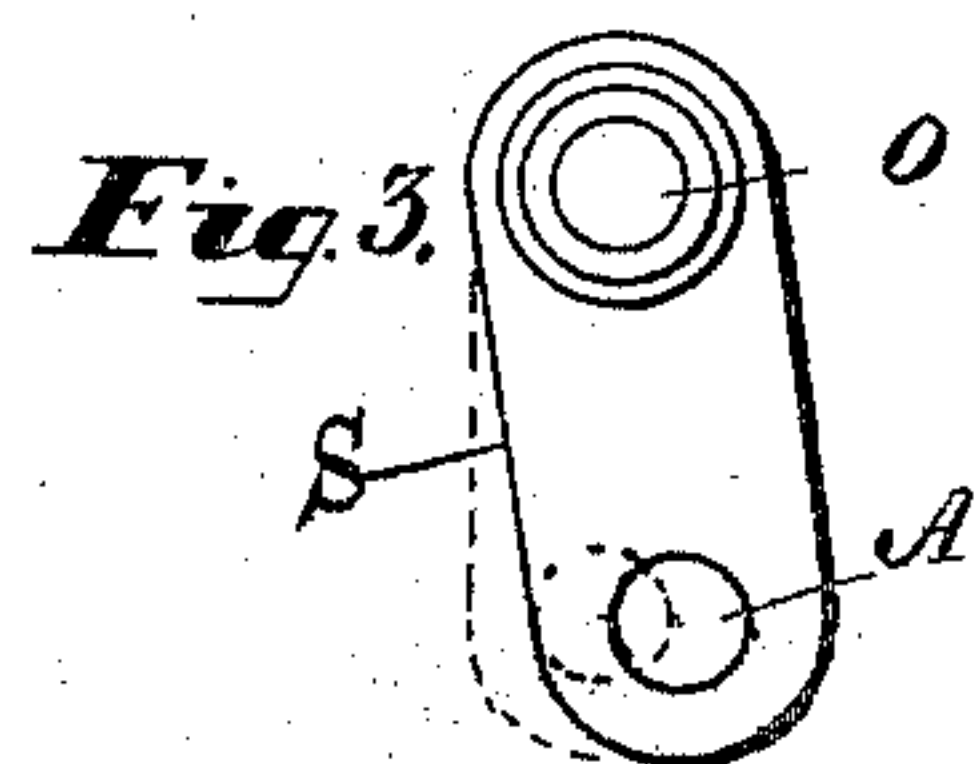
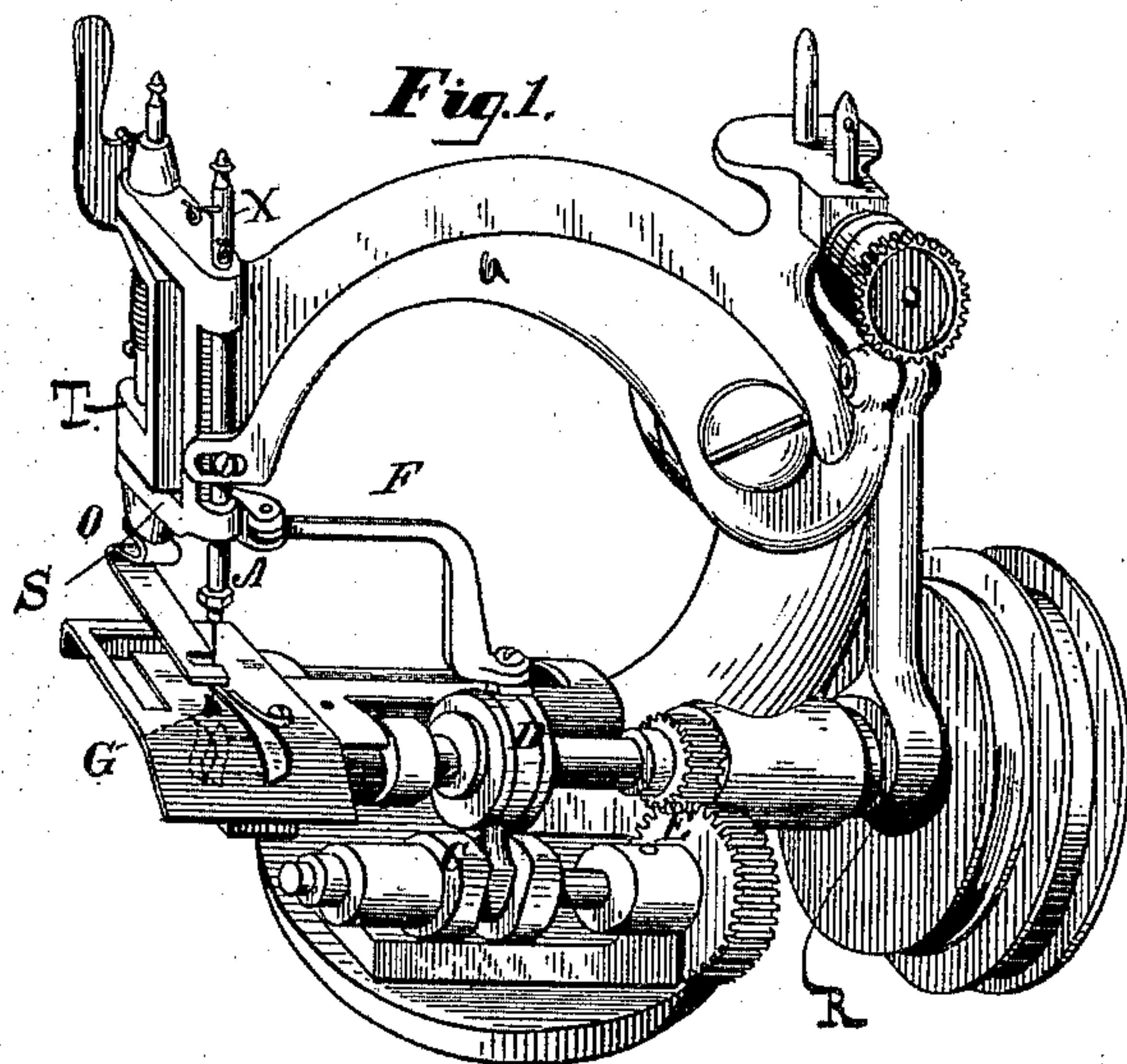
(No Model.)

O. L. SCHASTEY.

SEWING MACHINE.

No. 328,816.

Patented Oct. 20, 1885.



WITNESSES:

John W. Carr
R. Loper, Baird.

INVENTOR

Otto L. Schastey
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UNITED STATES PATENT OFFICE.

OTTO LOUIS SCHASTHEY, OF NEW YORK, N. Y.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 328,816, dated October 20, 1885.

Application filed August 7, 1884. Serial No. 139,960. (No model.)

To all whom it may concern:

Be it known that I, OTTO L. SCHASTHEY, a citizen of the United States, residing in the city of New York, in the State of New York, have
5 invented an Improvement in Sewing-Machines, of which the following is a specification.

My invention relates to sewing-machines which employ a single thread; and it consists
10 of the mechanism, hereinafter described, for making a cross or binding stitch, especially applicable for sewing edges of material, and is illustrated by the drawings annexed hereto and forming a part of this specification, in
15 which—

Figure I is a front elevation of the machine. Fig. II is a sectional view of the hollow shaft H, with its sliding collar D, and looper and
20 looper shank; and Figs. III to VII, inclusive, are views of several of the parts in detail.

The design of my invention is accomplished by means of a vertically and laterally reciprocating needle-bar operated by mechanism
25 connecting it with a sliding collar moving upon a hollow shaft, within which the looper-shank is held and laterally reciprocated in like manner. The general frame-work of the machine is as usual in sewing-machines.

A main shaft, H, connected directly with
30 the driving-wheel, is hollow and operates the needle-bar by means of a cam-motion connecting it with an arm or arms, and this hollow shaft is provided midway of its length with a sliding annular collar, D, having a grooved
35 circumference, the collar being slipped over the shaft H and prevented from moving along the same farther than the width of the slot I, by means of a pin or stud, K, inserted through the collar D, shaft H, and the looper-shank J, the sliding collar being laterally reciprocated
40 by means of the cam-motion C, whereby a similar laterally-reciprocating motion is imparted to the needle-bar simultaneously with its vertical movement, in order to bring the
45 needle at each alternate descent to different points in the throat-plate.

A cam, J', is secured to the looper-shank J beyond the hollow shaft H, and between it and the looper B. This cam operates the feed-
50 bar, which is thus given a rocking motion. The looper B is shown in full in Fig. II.

The throat-plate G, Fig. IV, is slotted in

the manner shown, to allow of the descent of the needle in either of the slots successively, by the laterally-reciprocating movements of
55 the needle-bar, and to carry the thread on either side successively of the edge of the fabric to be sewed and there be knotted or looped by means of the looper B, as shown by the dotted lines in Fig. I.

The sliding collar D serves to laterally reciprocate the needle-bar by means of an angular arm, F, rigidly connected at one end with
60 said collar, and at the other end is pivoted to a plate, S, through which the needle-bar passes, and which said plate S is in like manner pivoted to the presser-bar frame T, and moves
65 freely upon the pivot (see Fig. III) laterally, thereby imparting a laterally-reciprocating motion to the needle-bar which passes through
70 it, and also forming an upper guide therefor.

The presser-foot (see Fig. VII) is cut away over the recess in the throat-plate G, to allow the described movement of the needle-bar.

In Fig. VI is shown a horizontal sectional
75 view of the presser-foot arm, needle-bar, guide-plate, wedge, and set-screw, the latter constituting adjusting mechanism. The presser-foot arm is recessed tapering, as shown at N, into which the taper wedge M is inserted by
80 means of a set-screw, L, passing through the presser-foot bar, and the wedge thus presses more or less tightly in the presser-foot arm.

The operation is as follows: Motion being given to the main shaft, the cam R, by means
85 of connecting-arms, causes a vertical movement of the needle-bar, and the cam C on the lower shaft will cause a lateral movement of the sliding collar D, and a consequent laterally-reciprocating motion of the needle-bar
90 simultaneously with its vertical movement. The collar being affixed to the looper-shank J by means of the pin K, the said shank with its looper B will be moved laterally the width of the slot I, and sufficiently so for its point
95 to catch the thread from the needle after it has descended through the cloth and below the throat-plate and loop the same, forming a stitch. The next downward movement of the
100 needle-bar will bring the needle through the opposite hole in the throat-plate, and in consequence will form on the cloth or material operated upon a cross or binding stitch.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a sewing-machine for making a cross or binding stitch, the needle-bar X and mechanism for vertically reciprocating the same, needle-bar guide-plate S, with mechanism for laterally reciprocating the same simultaneously with the vertical movements of the said needle-bar, hollow shaft H, looper B, looper-shaft J, and the sliding collar D, with mechanism for simultaneously revolving and laterally reciprocating the same, whereby similar motions are imparted to said looper, the said parts being constructed, arranged, and operating substantially as set forth.

2. The combination of the sliding collar D, operated by a cam-motion, with the angular rod F, and needle-bar A, whereby a laterally-reciprocating motion is given to the latter simultaneously with its vertical movements, as and for the purpose set forth.

3. In combination with the looper-shank J and looper B, the hollow shaft H, and sliding collar D, arranged thereon and connected with said looper-shank, with mechanism to operate said collar in the manner described, whereby a laterally-reciprocating motion and a revolving motion are simultaneously given to said looper, substantially as set forth.

4. The combination of the looper-shank J, hollow and slotted shaft H, and sliding collar D, said parts being connected together by means of the stud K, with cam mechanism C, whereby the said collar is revolved by said shaft and simultaneously reciprocated laterally within the slot of said shaft, imparting like motion to said looper-shank, substantially as described.

5. The combination, in a sewing-machine for making a cross or binding stitch, of a laterally-reciprocating needle-bar, a looper and looper-shaft having a revolving motion simultaneously with its laterally-reciprocating motion, and the throat-plate G, slotted as described, in order to permit the descent of the needle to the looper at different points in the said plate successively, as and for the purpose set forth.

In witness whereof I have signed my name to this specification in the presence of witnesses.

OTTO LOUIS SCHASTEY.

Witnesses:

ANDREW J. HIXON,
CHAS. H. DRIVER.