

(No Model.)

P. B. LASKEY.

NEEDLE CLAMP CARRIER FOR SEWING MACHINES.

No. 498,212.

Patented May 23, 1893.

Fig:1.

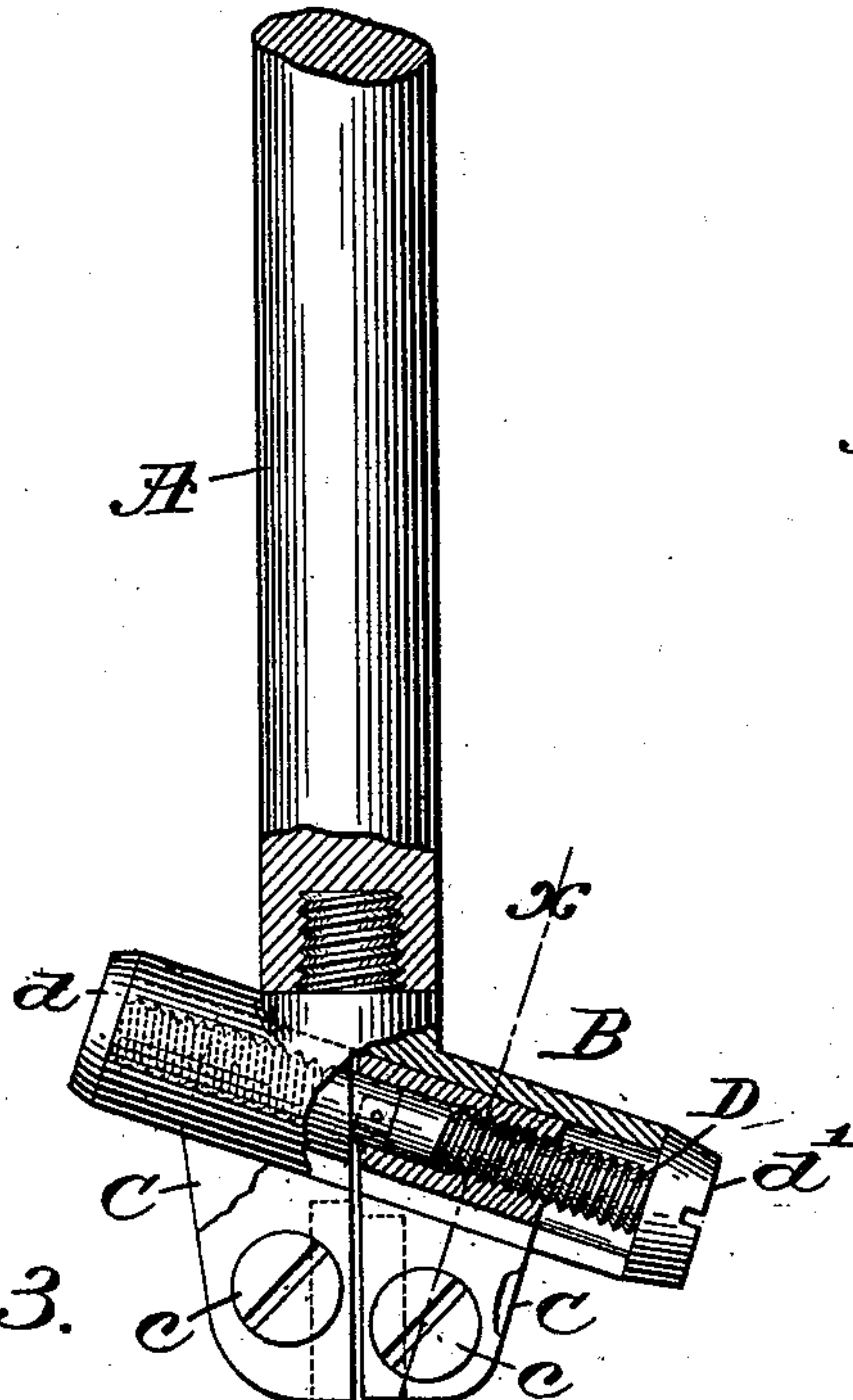


Fig:2.

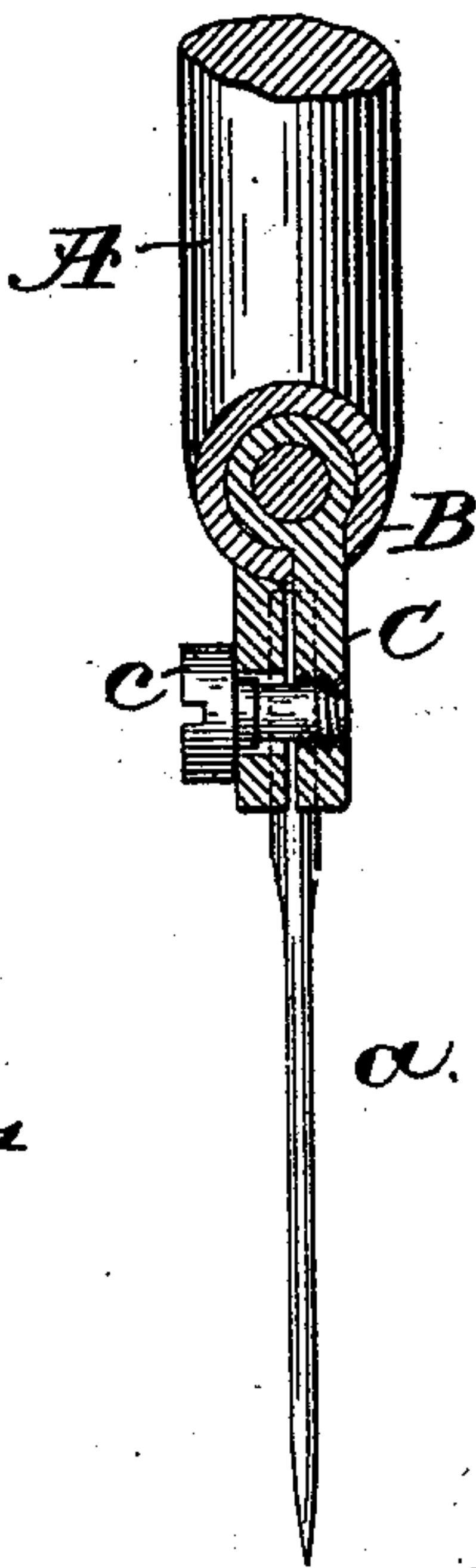


Fig:3.

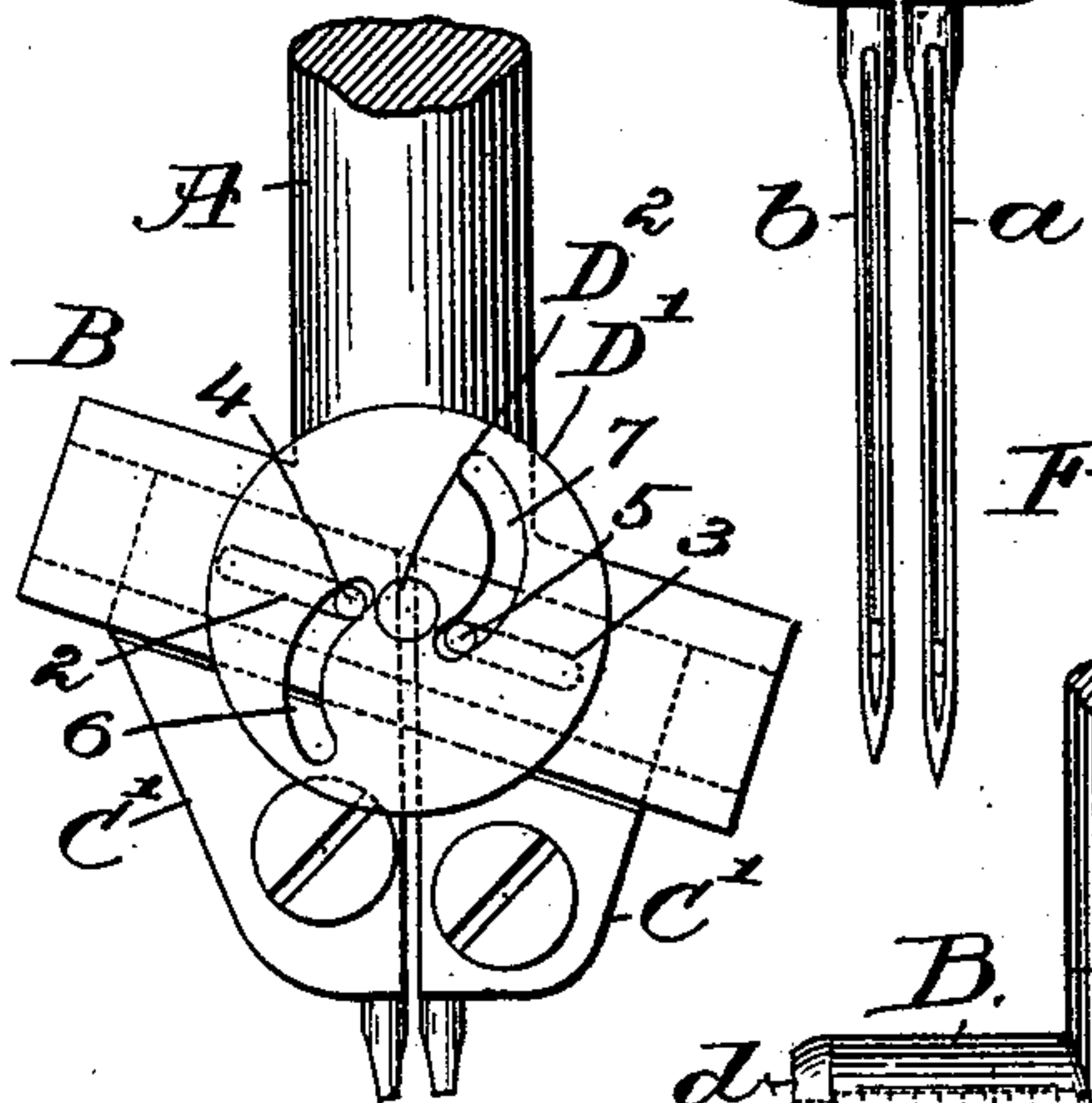


Fig:4.

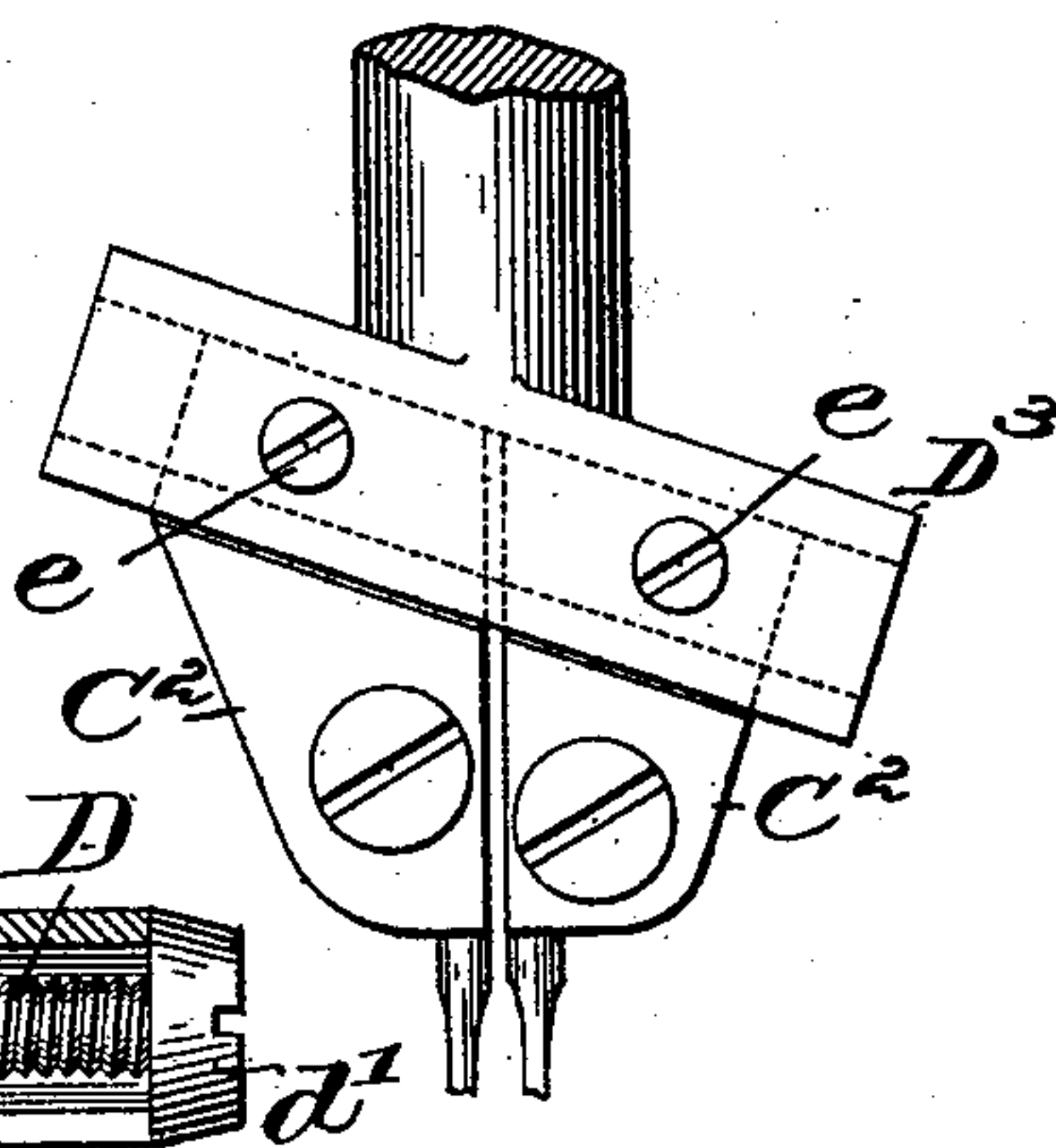
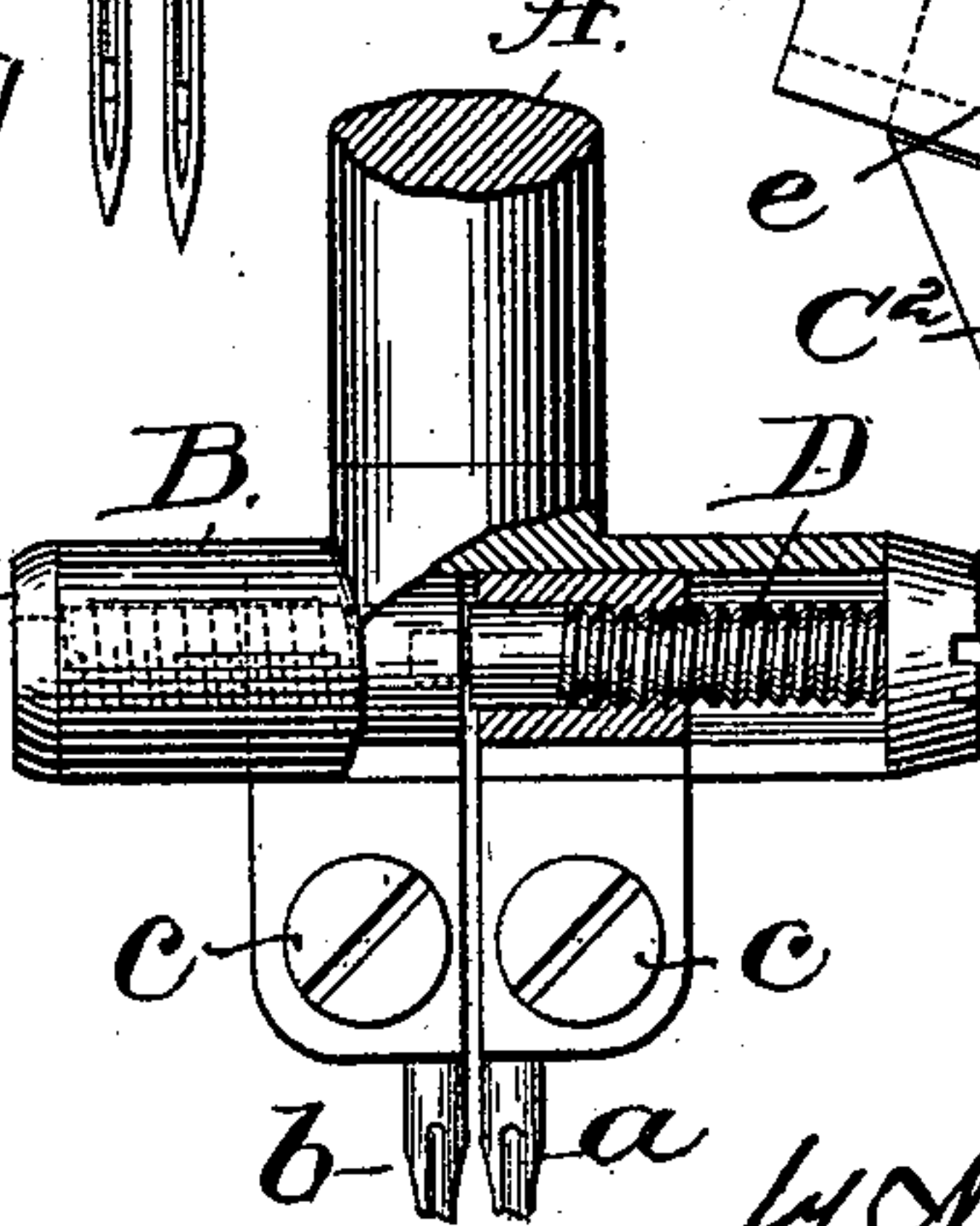


Fig:5.



witnesses.

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UNITED STATES PATENT OFFICE.

PHILIP B. LASKEY, OF MARBLEHEAD, MASSACHUSETTS.

NEEDLE-CLAMP CARRIER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 498,212, dated May 23, 1893.

Application filed December 27, 1892. Serial No. 456,416. (No model.)

To all whom it may concern:

Be it known that I, PHILIP B. LASKEY, a citizen of the United States, residing at Marblehead, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Needle-Clamp Carriers for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has for its object the production of a carrier for two or more needle clamps whereby the clamps, when adjusted toward and from each other, are simultaneously therewith adjusted vertically. The
15 simplest and best device known to me for effecting this simultaneous vertical and lateral adjustment is a right and left threaded screw engaging the needle clamps, but instead of a screw I may employ other devices equivalent
20 in action for effecting the simultaneous adjustment.

Prior to my invention I am not aware that two needle holding clamps have been simultaneously adjusted by any device which
25 adjusts them vertically as they are moved toward and from each other, to thus effect the proper positioning of the needles with relation to the device or devices complementary to the needle for the formation of stitches, what-
30 ever may be the form of complementary device. The vertical adjustment compelled by the lateral adjustment of the needles enables a single shuttle or loop-taking device to maintain its proper working relation to the said
35 needles for stitching.

My invention consists in the combination with a needle-bar and a diagonally placed carrier or support, of two or more needle clamps, and devices to retain the said clamps
40 in adjusted position therein. Also, in the combination with a needle bar, an attached inclined or diagonally placed carrier or support, and two or more needle holding clamps adapted to receive the shanks of and hold
45 two or more needles, of an adjusting device to engage said clamps and effect their simultaneous adjustment toward and from each other, the clamps moving in the said diagonal carrier or guide-way being also simultaneously
50 ly adjusted vertically. Also in a certain specific construction of needle clamp carrier and

adjusting device, as indicated in the claims of this specification.

Figure 1, much enlarged, shows a needle bar with a carrier or guide and needle hold- 55 ing clamps therein as provided for in accordance with my invention. Fig. 2 is a section in the line x Fig. 1, and Figs. 3 to 5 represent modifications of my invention.

Referring to the drawings, A represents 60 part of a needle-bar to the lower end of which is secured, in any suitable manner, a needle clamp carrier or support B, the needle-bar connection shown in Fig. 1 being by a threaded lug on the support screwed into a tapped hole in 65 the needle bar. The needle clamp carrier or support B is preferably made in the form of a tube, as shown in Figs. 1, 2 and 5. This carrier or support B will preferably be so constructed or shaped as to occupy a diagonal or inclined 70 position with relation to the longitudinal center of the needle-bar, and to receive and guide the needle holding clamps C, two or more said clamps being of any usual or suitable shape to receive and hold the shanks of the 75 needles a, b , the clamps shown being each in two pieces held together by screws c .

The carrier or support B sustains a suitable clamp adjusting device.

In Figs. 1 and 2, the device for adjusting 80 the needle clamps or holders is shown as consisting of a screw D having right and left threaded portions, the right hand thread of the screw engaging one clamp or holder, and the left hand thread the other clamp or holder. 85 The screw shown has at one end a flange or collar d , which abuts against one end of the tube B, said screw having at its other end a nicked head d' adapted to be engaged by a screw driver. The screw D is shown as com- 90 posed of two parts, one part having a projection at one end to enter a hole in the other parts, the said parts being put together and suitably pinned or otherwise connected one to the other. This invention is not, however, 95 limited to the exact construction of the screw shown, and instead thereof I may employ any other usual means to hold the double threaded screw, so that it will rotate freely yet not move longitudinally. In the adjustment of 100 the clamps toward and from each other, they are also adjusted vertically, owing to the di-

agonal or inclined position of the support B with relation to the needle-bar, the extent of this vertical adjustment depending on the extent of the variation of the support from a position at right angles to the needle bar.

In the modification shown in Fig. 3 the support B is shown as slotted as at 2, 3, see dotted lines, to receive two pins or projections 4, 5, on the needle clamps or holders C', said pins entering cam slots 6, 7, in a clamp-adjusting device D' made as a plate pivoted at D² and which may be rotated in one or the other direction as required.

In the modification shown in Fig. 4, which represents the simplest form of my invention, the clamps C² have their upper ends movable in the carrier or guide-way D³, and said clamps are held in any desired position of adjustment by set screws e, e. In this modification, the feature of simultaneous adjustability is absent, yet prior to my invention I am not aware that a diagonally arranged carrier or needle-clamp support on a needle bar has ever had a clamp mounted on it so as to be adjusted vertically at the same time that it is adjusted horizontally, the clamps carrying the needles with them. The needle holding grooves in the clamps shown are arranged close to the inner or adjacent edges thereof, so that when the clamps are together, as in Fig. 1, the needles will lie close to each other as is required when two rows of stitching are being made close together. It will be understood that the needles, whether more or less close to each other, will stand with their eyes in such position as to occupy the proper operative position with relation to the shuttle or loop-taker which co-operates with both needles, and which, of course, will meet one needle a little earlier in its forward movement than it will the other, thus permitting the needle which the point of the shuttle or loop-taker first meets with to rise somewhat after the point of the shuttle or loop-taker has taken a loop of the first needle before the loop of the second needle is taken, and thus the eye of the second needle will be the same distance below the work-plate of the machine when the point of the shuttle or loop-taker takes its loop as is the eye of the first needle when its loop is taken; this compensating adjustment being desirable to, prevent skipping stitches, as will be readily understood by those skilled in the art to which my invention relates. If, however, my improved tubular needle clamp carrier be designed for use in connection with separate shuttles or loop-

takers for each needle, the supports or tubes, in which the needle clamps are laterally adjustable by the right and left hand screws will be arranged horizontally, as shown in Fig. 5, instead of being inclined as shown in Figs. 1 to 4.

It will be understood that the parts are fitted together closely so that the screw D will turn in the support or tube B with a little friction which will prevent any accidental turning of the screw and thus avoid accidental displacement of the needles except as the said screw is turned by the operator for the purpose of such adjustment.

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

1. The combination with a needle-bar, and an attached diagonally placed clamp support, of a plurality of needle clamps or holders adjustable thereon, for the purposes set forth.

2. The combination with a needle-bar provided with an inclined or diagonally placed clamp support, of a plurality of needle-holding clamps, and an adjusting device co-operating with said clamps and adapted to simultaneously adjust them both horizontally and vertically, for the purposes set forth.

3. The combination with an inclined needle clamp support adapted to be attached to a needle bar, and a plurality of needle clamps provided with screw threaded portions, of a right and left hand screw sustained by said support, and engaging correspondingly threaded portions of the said clamps, whereby by turning the said screw the said clamps may be adjusted simultaneously, each with relation to the other, both vertically and horizontally, substantially as described.

4. The combination with a needle-bar, of a tubular needle clamp support B attached thereto, a right and left hand screw fitting in said tubular support, so as to turn therein, and having at one end a flange or collar d abutting against one end of said tubular support and at its other end a head d' by which said screw may be turned, said head abutting against the other end of said support, and two needle clamps having threaded shank portions engaged by the threads of said screw, substantially as described.

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

PHILIP B. LASKEY.

Witnesses:

CHARLES S. HILL,
DELBERT W. NORTHROP.