

(No Model.)

H. R. TRACY.

FEEDING MECHANISM FOR SEWING MACHINES.

No. 471,036.

Patented Mar. 15, 1892.

Fig. 1.

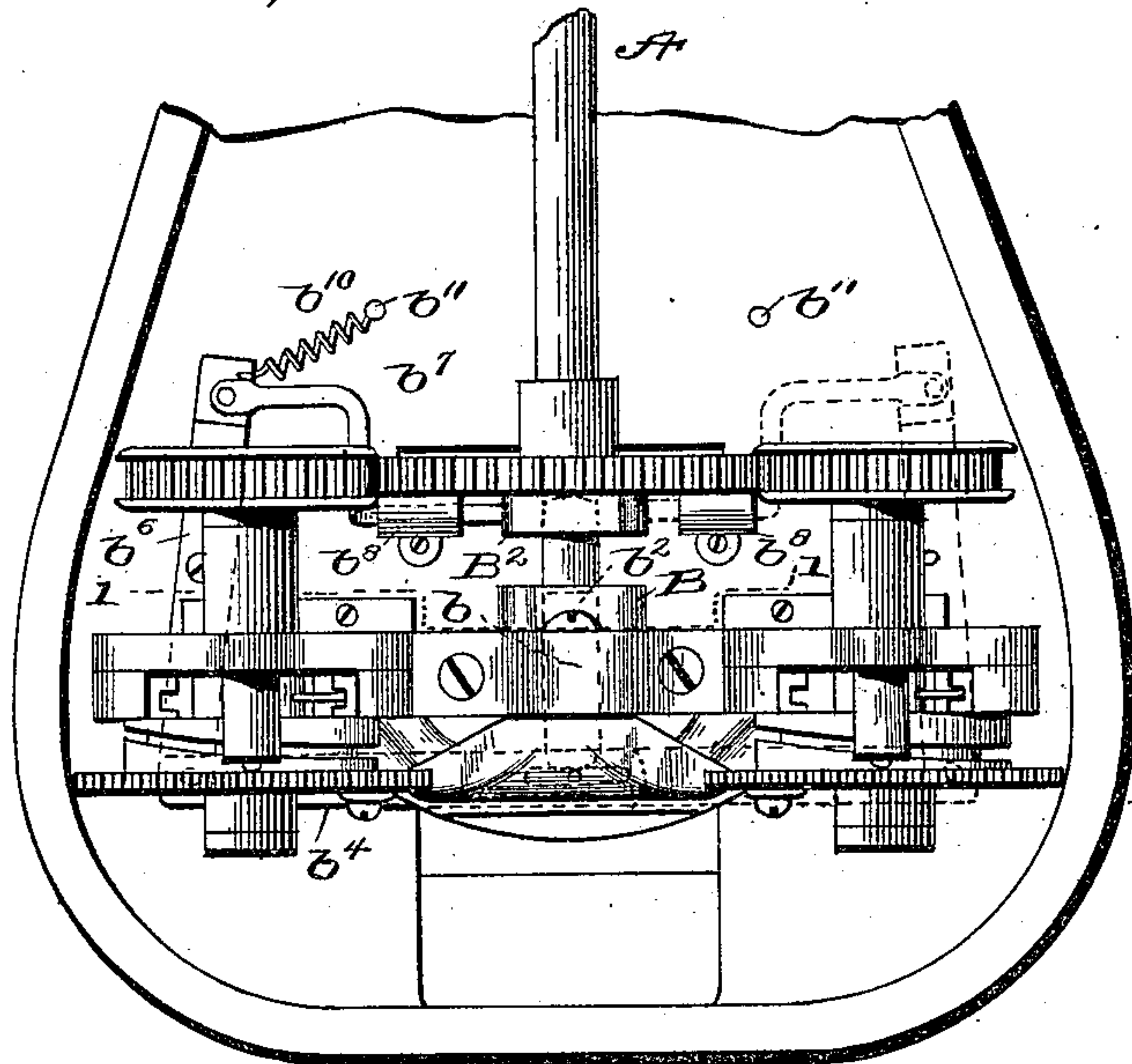


Fig. 2.

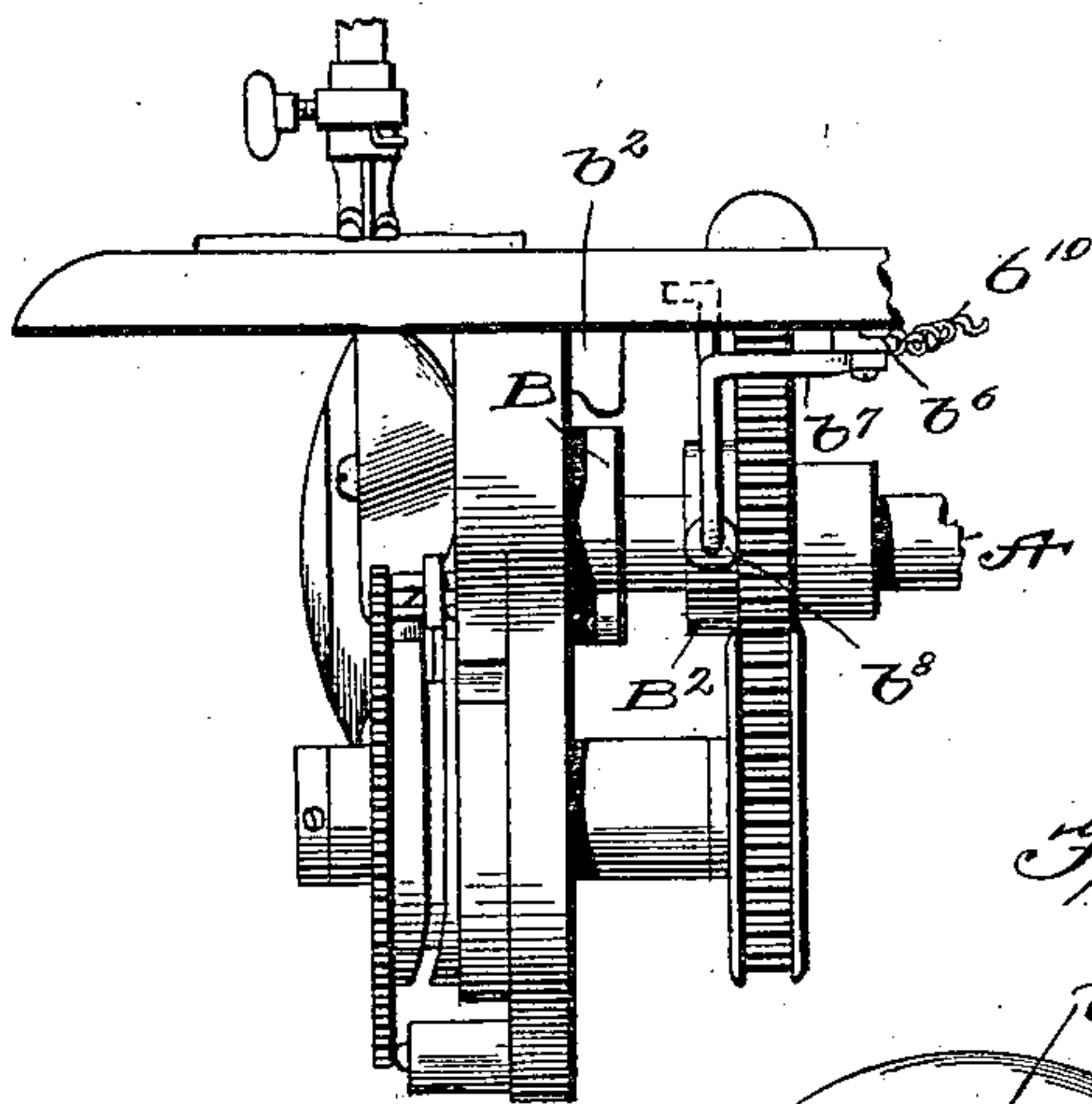


Fig. 3.

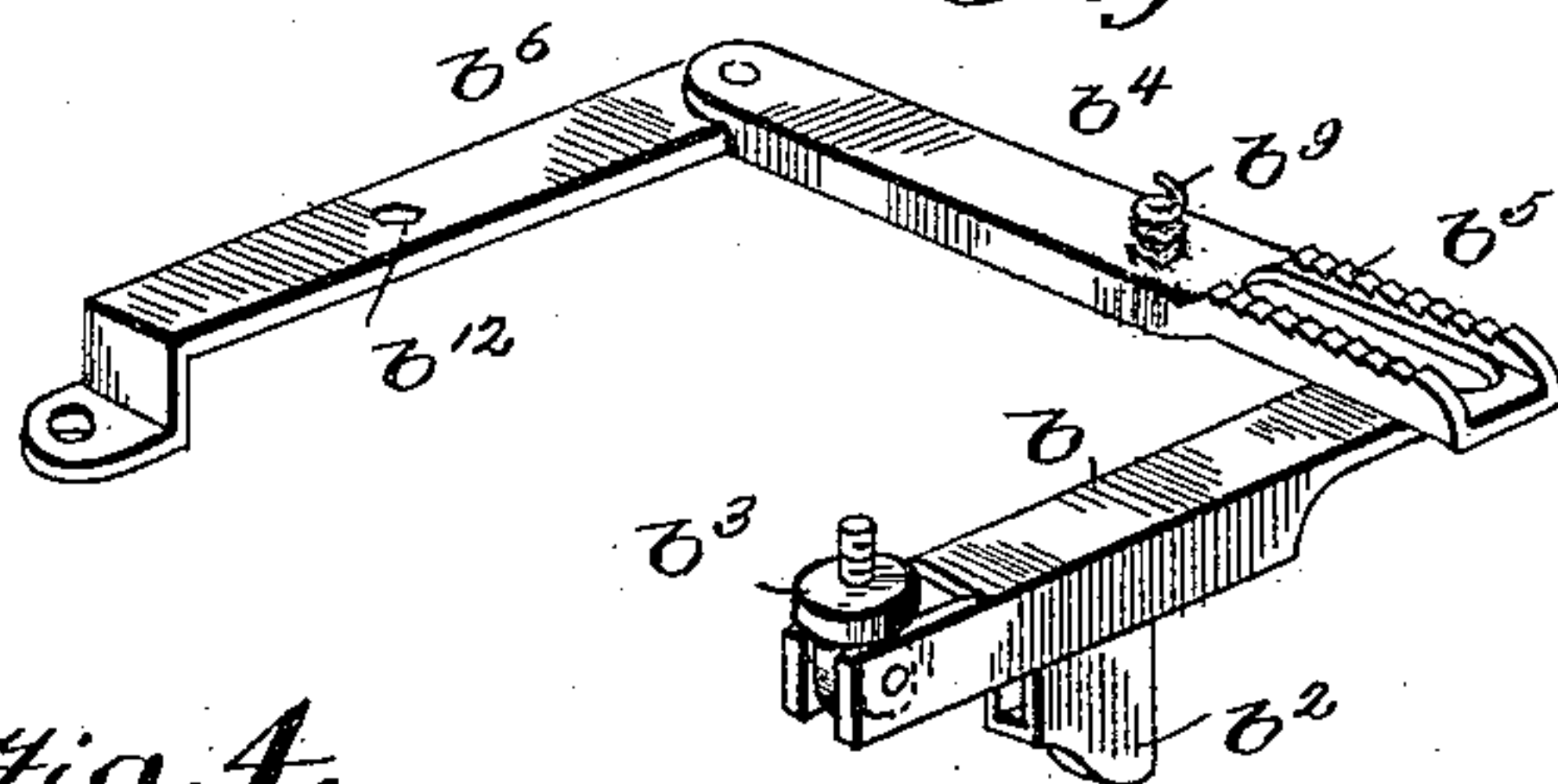


Fig. 4.

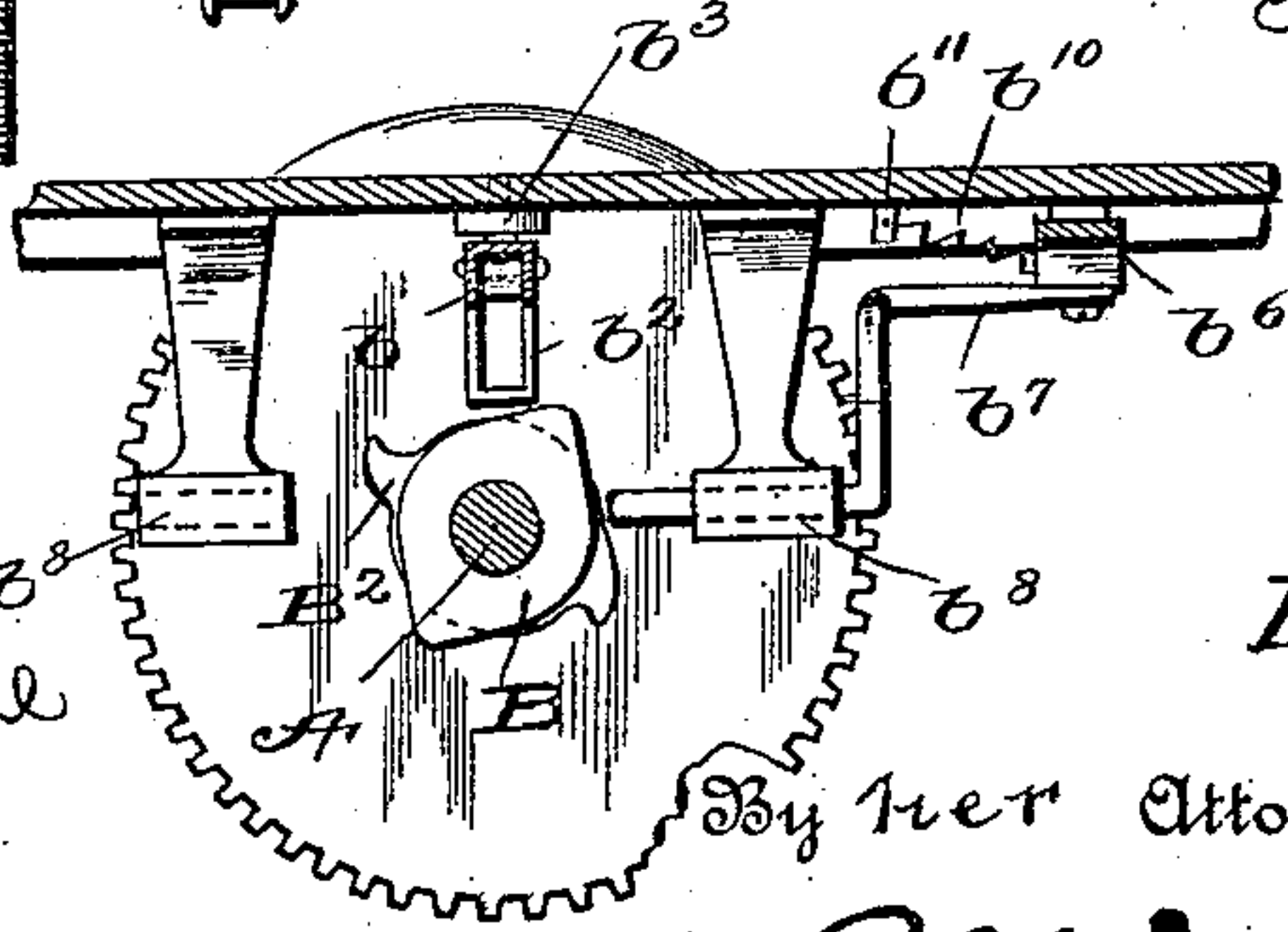
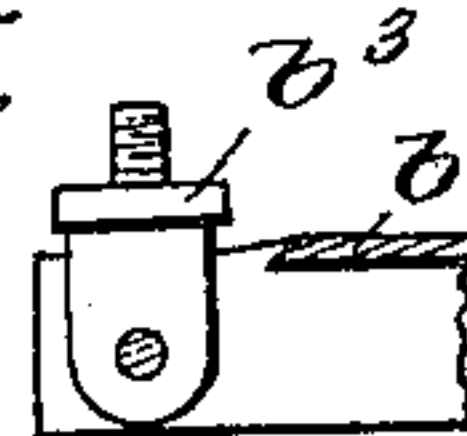


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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FEEDING MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 471,036, dated March 15, 1892.

Application filed December 18, 1891. Serial No. 415,619. (No model.)

To all whom it may concern:

Be it known that I, HARRIET RUTH TRACY, a citizen of the United States, residing at New Brighton, in the county of Richmond and State of New York, have invented certain new and useful Improvements in Feed Devices for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to sewing-machines.

The object of the invention is to produce a feeding device for sewing-machines which can rapidly be reversed by changing the position of few parts in order to cause the cloth being worked upon to be moved in either one of two directions at will.

With this object in view the invention consists, essentially, in a sewing-machine provided with a main shaft carrying two feed-actuating cams, a slotted bed-plate having upon its under face on opposite sides of the shaft a hanger provided with a bearing, a pivoted feed-lifting bar centrally disposed above the shaft and engaging one of the cams, a feed-actuating lever detachably pivoted to the bed-plate and also connected to the feed-bar and at the other end to an actuating spring-controlled rod borne in one of the hangers and engaging the other of the cams, whereby both a vertical and horizontal movement may be imparted to the feed-bar and the direction of the feed movement may be reversed at will.

In the accompanying drawings, forming a part of this specification, and in which like letters of reference indicate corresponding parts, Figure 1 is an inverted plan view of a machine with the reversible feed in position. Fig. 2 is an elevation of the shuttle and of the parts moving the same containing my invention. Fig. 3 is a perspective view showing the reversible feed separate. Fig. 4 is a cross-section on line 1 1 of Fig. 1, and Fig. 5 is a detail view.

In the drawings, A represents the main driving-shaft of the machine. Motion from the driving-shaft is communicated to the needle-bar and to the shuttle in any suitable well-known way.

The feed of the machine is operated by two

cams B and B², placed on the driving-shaft of the machine. The cam B bears upon the lower end of a projecting arm b² of a bar b, which is pivoted to a stud b³, attached to the lower face of the work-plate of the machine, and thus the bar b is given an up-and-down motion as the shaft revolves. The bar b bears upon the under side of a bar b⁴, carrying the toothed portion b⁵, the serrated parts of which project through slots in the work-plate of the machine. The bar b⁴ is pivoted to and carried by a bar b⁶, which is attached to the work-plate by a screw passing through the opening b¹². To the bar b⁶ is attached a rod b⁷, resting in a socket b⁸, and has its lower end bearing upon the cam B², so that as the cam B² revolves a back-and-forth motion is imparted to the feed simultaneously with the raising motion imparted from the cam B. A small spring b⁹ is interposed between the plate b⁴ and the work-plate of the machine and aids in returning the feed to its lower position after being raised in feeding. To return the feed to its normal position horizontally after each impulse, a helical spring b¹⁰ is attached to the end of the bar b⁶ and to a stud b¹¹ on the work-plate. The sockets b⁸ are attached one to each side of the machine, and as the plate b⁶ is attached to the work-plate by a screw, which is easily removed, the direction of feeding may quickly be changed by changing the bar b⁶ and its appurtenances from one side of the plate to the other, according to the direction in which it is desired to feed.

The mechanism last described constitutes a reversible feed by taking the screw out of the opening b¹², swinging the bar b⁶ to a corresponding position on the opposite side of the bar b⁴, and then reversing the bar b⁴.

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

The combination, in a sewing-machine, with the main shaft carrying the feed-actuating cams, of a slotted bed-plate having upon its under face on opposite sides of said shaft a hanger provided with a bearing, a pivoted feed-lifting bar centrally disposed above said shaft and engaging one of the cams thereon, and a feed-actuating lever detachably pivoted to the bed-plate and also pivoted at one extremity to the feed-bar and at the other to an act-

uating spring-controlled rod borne in one of the hangers and engaging the other of said cams, whereby both a vertical and horizontal movement may be imparted to the feed-bar and the direction of the feed movement may be reversed by the shifting of the feed-bar, its actuating-lever and rod, as set forth.

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

HARRIET RUTH TRACY.

Witnesses:

R. G. DYRENFORTH,
E. H. PARRY.