

(No Model.)

M. MARCIL.  
FEEDING DEVICE FOR SEWING MACHINES.

No. 407,298.

Patented July 16, 1889.

Fig:1.

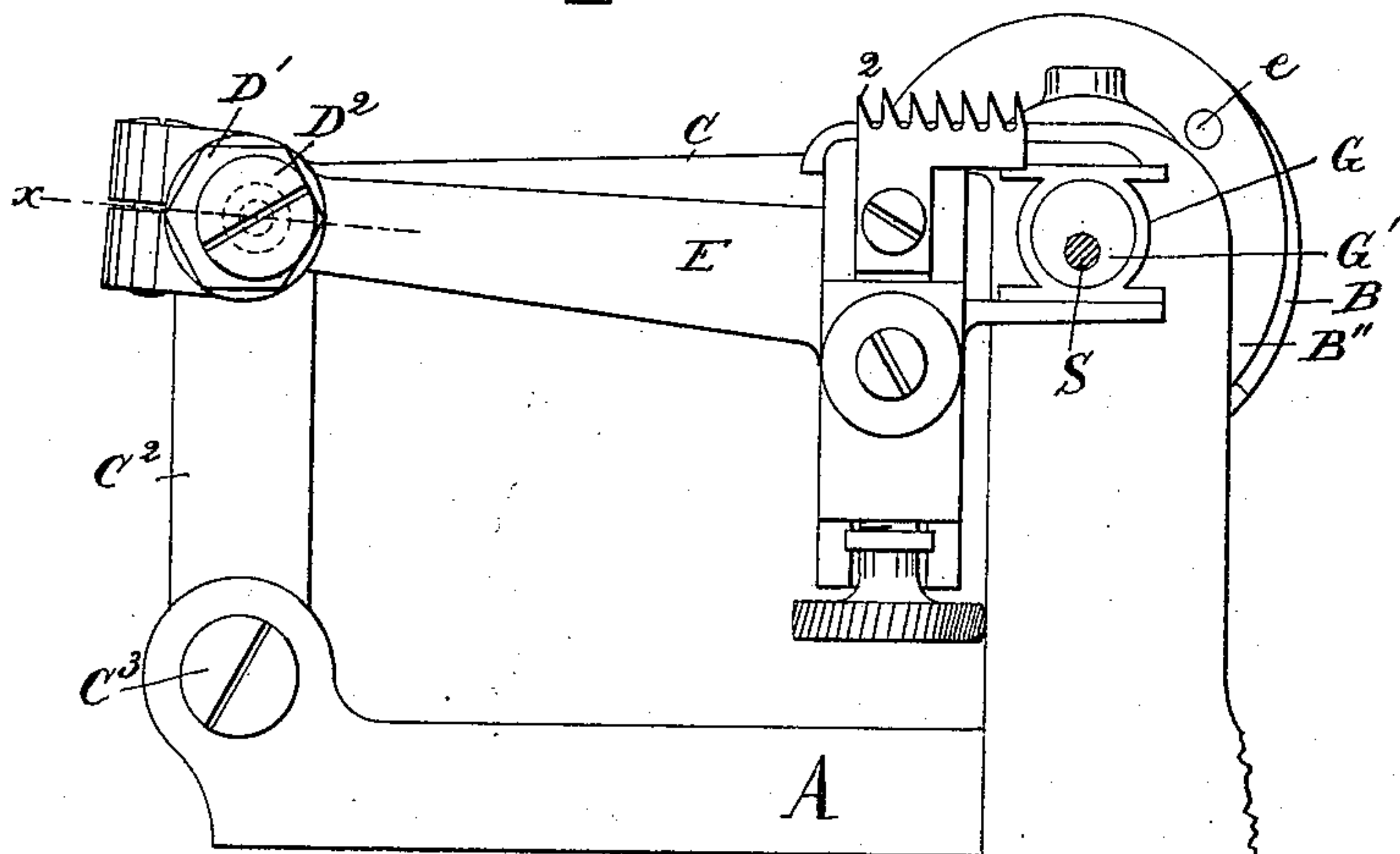


Fig:4.

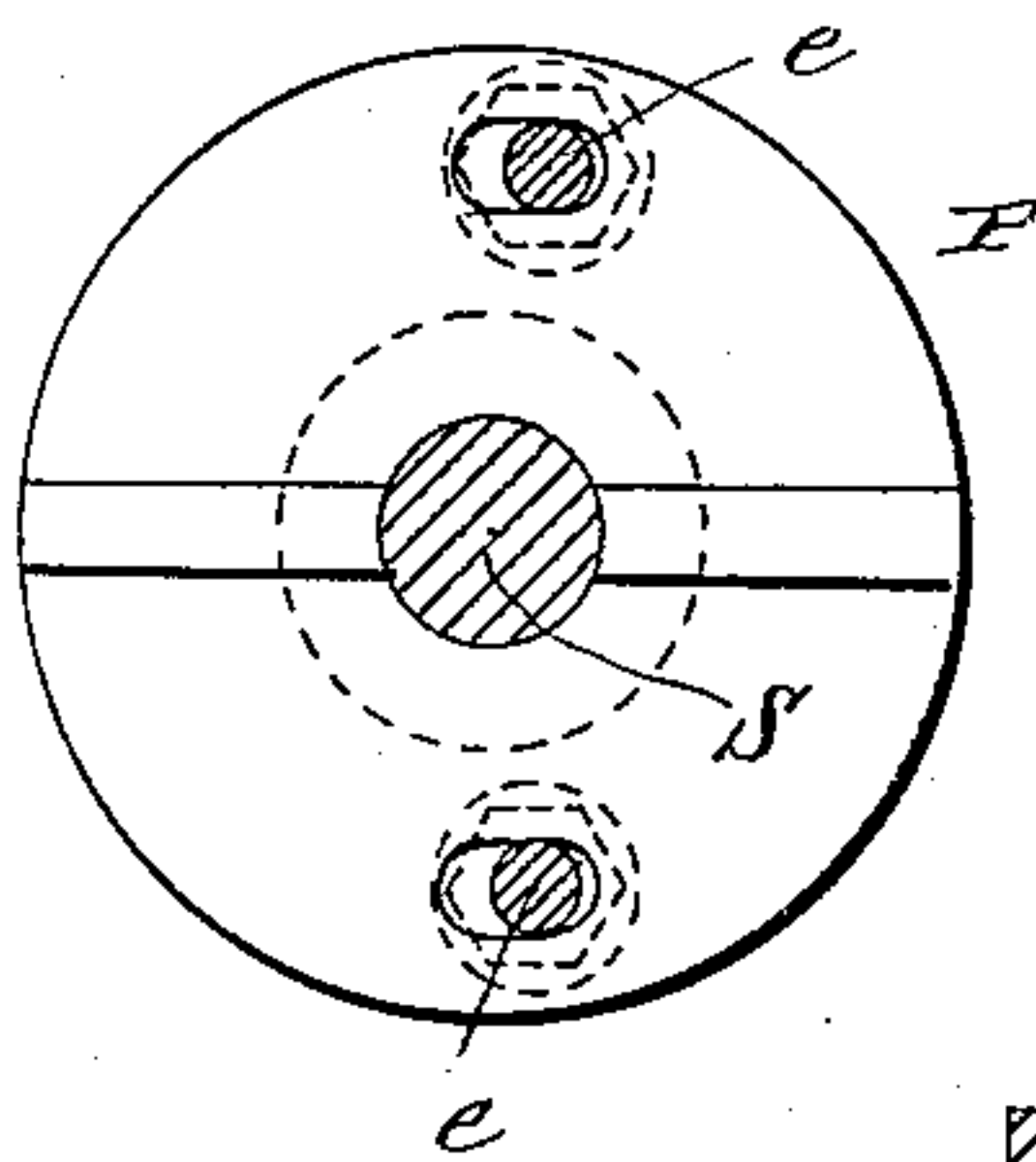


Fig:5.

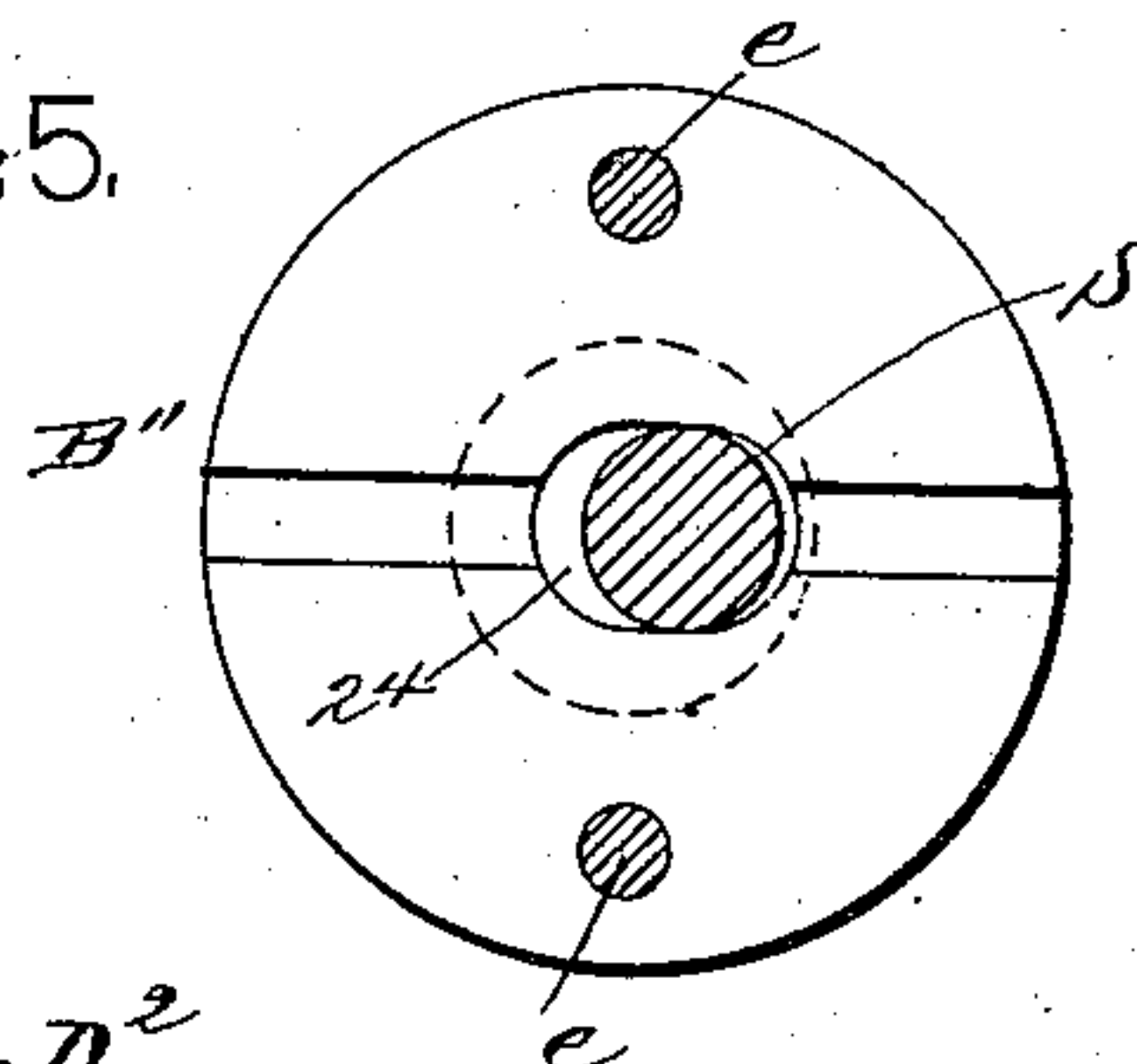


Fig: 2.

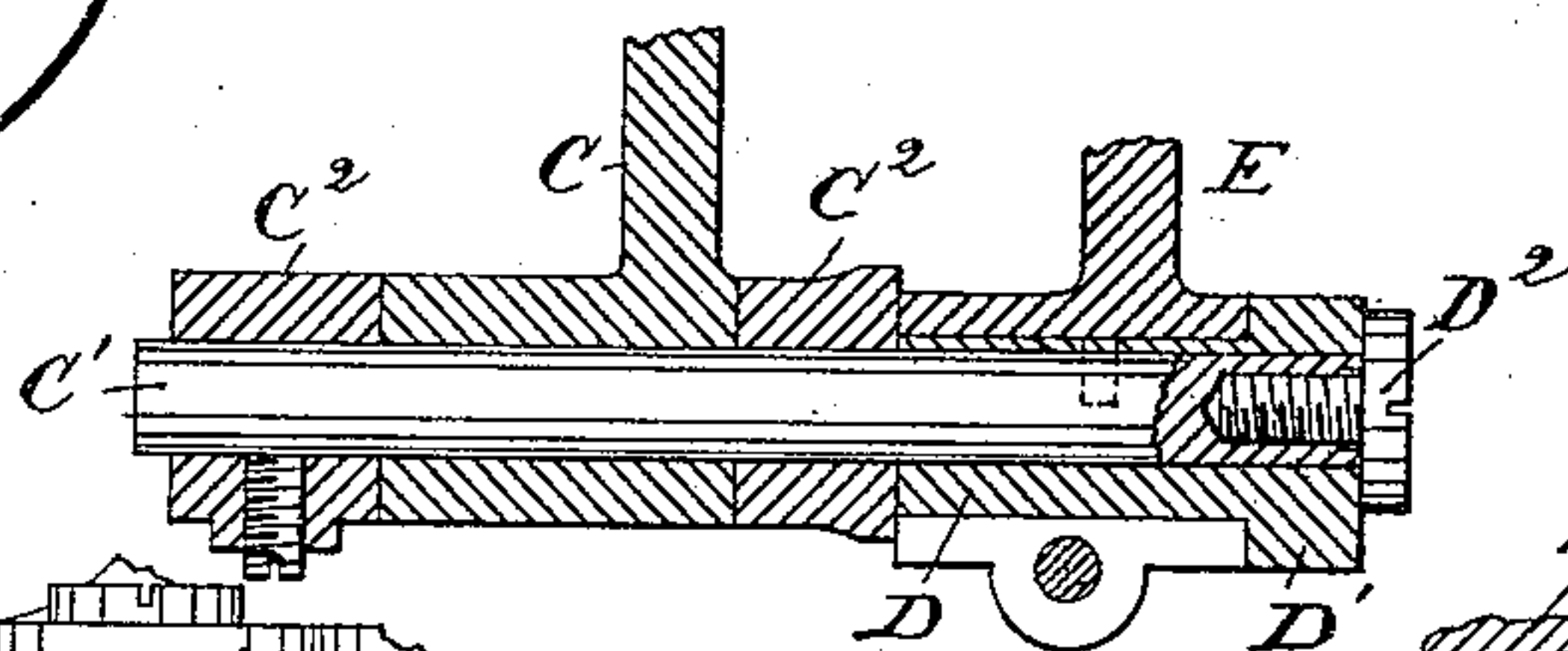
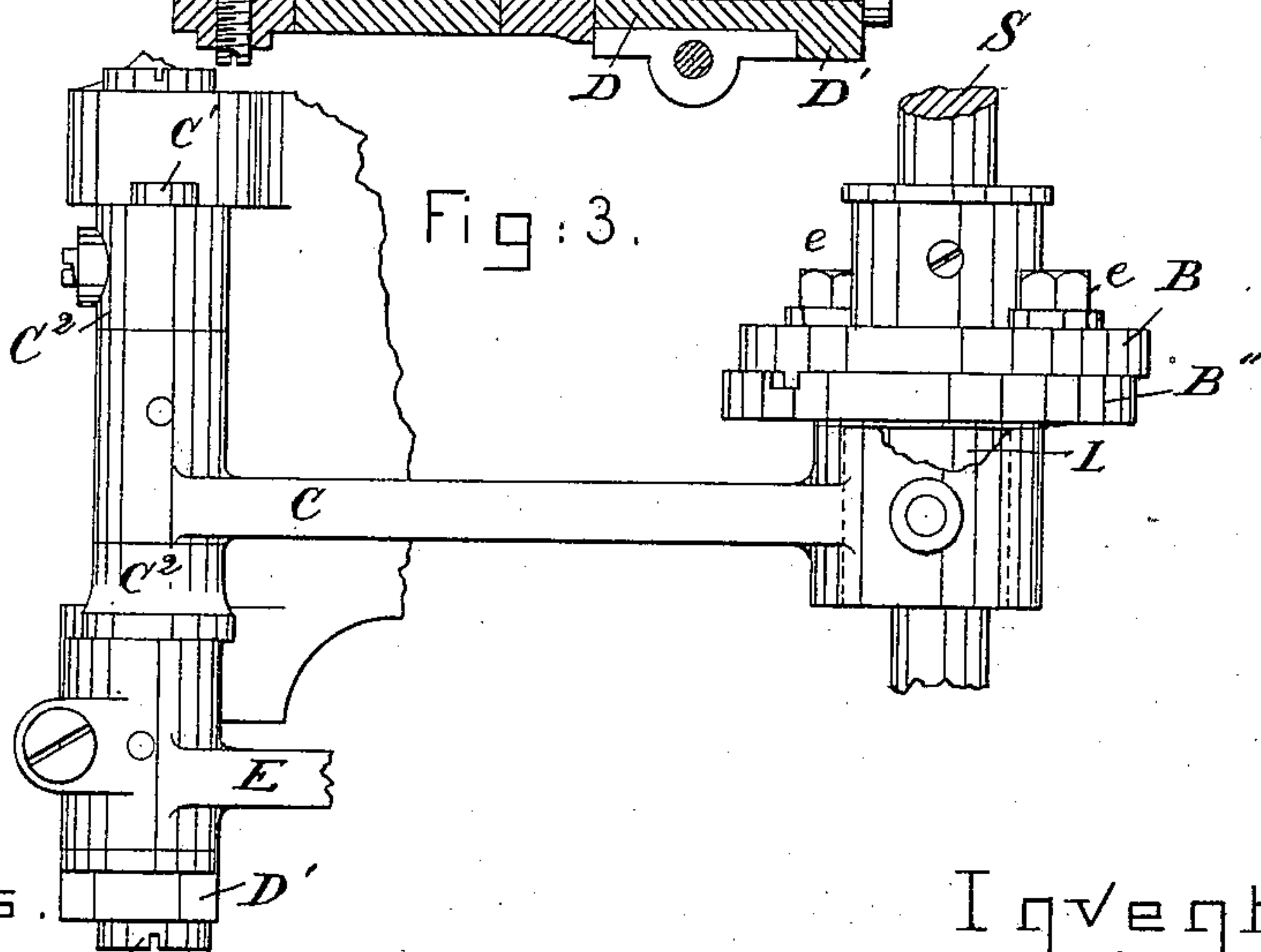


Fig. 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

MICHEL MARCIL, OF AMHERST, MASSACHUSETTS, ASSIGNOR TO THE HILLS COMPANY, OF SAME PLACE.

## FEEDING DEVICE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 407,298, dated July 16, 1889.

Application filed September 14, 1888. Serial No. 285,398. (No model.)

*To all whom it may concern:*

Be it known that I, MICHEL MARCIL, of Amherst, county of Hampshire, State of Massachusetts, have invented an Improvement in Feeding Mechanism for Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention has for its object to improve feeding mechanism of sewing-machines, more especially of that class using a rotating hook and called a "single-thread" machine.

In this my invention I have provided the stud carried by the rocker with an eccentric-sleeve, around which is fitted the rear end of the feed-lever, the rotation of the said eccentric-sleeve in one or the other direction, when the length of feed-stroke is changed to alter the length of stitch, enabling the feed-bar to be brought back always to the same point before starting forward to feed the material.

Figure 1—a front elevation—represents a sufficient portion of a feeding mechanism to enable my invention to be understood. Fig. 2 is a section of Fig. 1 in the line  $x$ . Fig. 3 is a partial plan view of the part shown in Fig. 1. Fig. 4 is a face view of the disk fixed to the main shaft, the latter and the screws extended through shown in section, the dotted lines around the shaft representing the hub of the disk B; and Fig. 5 shows the inner face of the disk B'', carrying the eccentric L, the latter being shown by dotted lines, the shaft, as well as the screws connecting the disk B'' with the disk B, being shown in section.

A represents a part of the frame-work of the sewing-machine.

S is a rotating shaft, having connected to it a hub having a flanged disk B. To this flanged disk is connected a second flanged disk B'' by bolts  $e$ , extended loosely through slots in the disk B and entering threaded holes in the disk B''. The disk B'' has at one side of it an eccentric L, and the disk B'' may be adjusted with relation to the disk B by loosening the bolts  $e$  and partially rotating or moving the disk B, to place the eccentric referred to more or less out of center with relation to the center of the shaft S when it is desired

to vary the length of stitch. The disk B'' has an eccentric-hole 24, (see Fig. 5,) which is larger than the diameter of the shaft S, to thus enable the said disk to be adjusted about the said shaft.

The shaft S, the disks B B'', bolts  $e$ , and eccentric are substantially as the same in United States Patent No. 245,781, wherein the said parts are designated by like letters.

The eccentric referred to and marked L, (shown partially in Fig. 3,) by breaking out the inner end of the link C, serves in its rotation to reciprocate the said link, so that it, surrounding the stud C', supported at the upper end of the rocker-frame C'', pivoted at C<sup>3</sup>, vibrates the said stud and rocker-frame, the extent of vibration of the frame and the length of the stitch depending upon the position of the eccentric L with relation to the shaft S. Upon the outer end of the stud C' (see Fig. 2) I have placed the eccentric-sleeve D, it having an irregular and, as herein shown, a hexagonal head D', which may be readily engaged and turned by a wrench, the said sleeve being held in an adjusted position by a set-screw D<sup>2</sup>.

The inner end of the feed-bar E, of usual construction and provided with usual feed-points 2, is provided with a split hub, which embraces the eccentric sleeve D. The forked front end of the feed-bar receives between its arms a sliding block G, within which is the eccentric T' on the shaft S, which eccentric raises and lowers the feed.

Were it not for the eccentric-sleeve D, the feed-bar E, moved backward and forward through the eccentric L and link C, would be moved back for a different distance with each different adjustment of the disk B'' and its eccentric, so that it would not always start from the same point when the feed was to take place; but by interposing the eccentric-sleeve between the studs C' and the hub of the feed-bar E it is possible, by a rotation of the sleeve in one or the other direction after any adjustment of the disk B'' and eccentric, to always insure that the feed-bar be moved back to a certain definite point, so as to always start forward from the same point no matter what the length of the feed-stroke,



that being determined, as stated, by the position of the eccentric L.

I do not claim the feed-bar nor the link C, nor the means for moving the link and vibrating the rocker C<sup>2</sup> for a greater or less distance, according to the length of stitch desired.

I claim—

1. The combination, with the shaft S, an adjustable eccentric actuated by it, the rocker, the stud, and connections between the said eccentric and rocker to vibrate the latter, of the feed-bar and the eccentric-sleeve interposed between the said stud and the hub of the feed-bar, to operate substantially as described.

2. The combination, with the shaft S, an ad-

justable eccentric actuated by it, the rocker, the stud, and connections between the said eccentric and rocker to vibrate the latter, of the feed-bar and the eccentric-sleeve interposed between the said stud and the hub of the feed-bar, and with the screw D<sup>2</sup> to fasten the said eccentric-sleeve in adjusted position, substantially as described.

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

MICHEL MARCIL.

Witnesses:

W. A. DICKINSON,

R. G. SHAW.