

(No Model.)

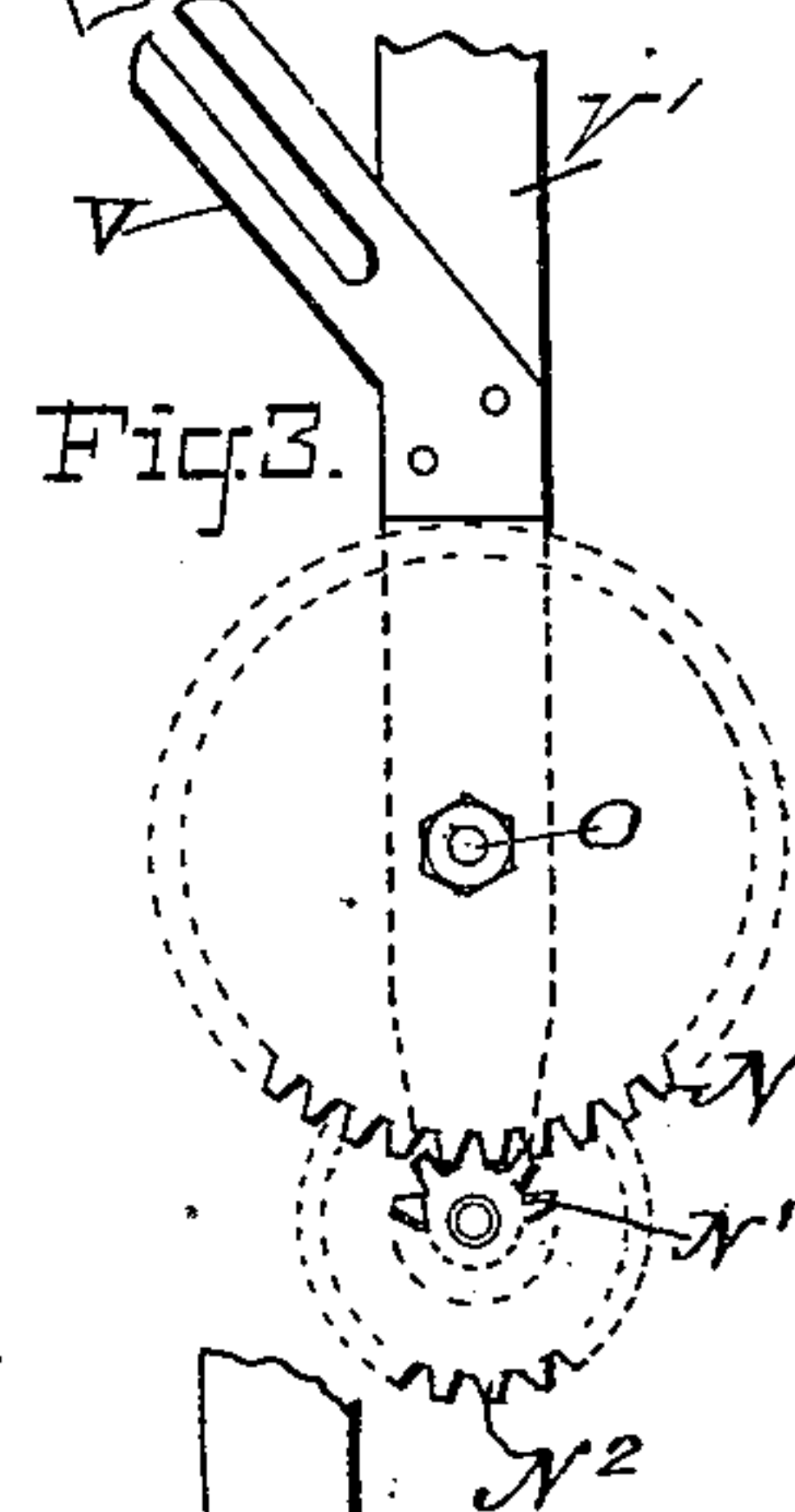
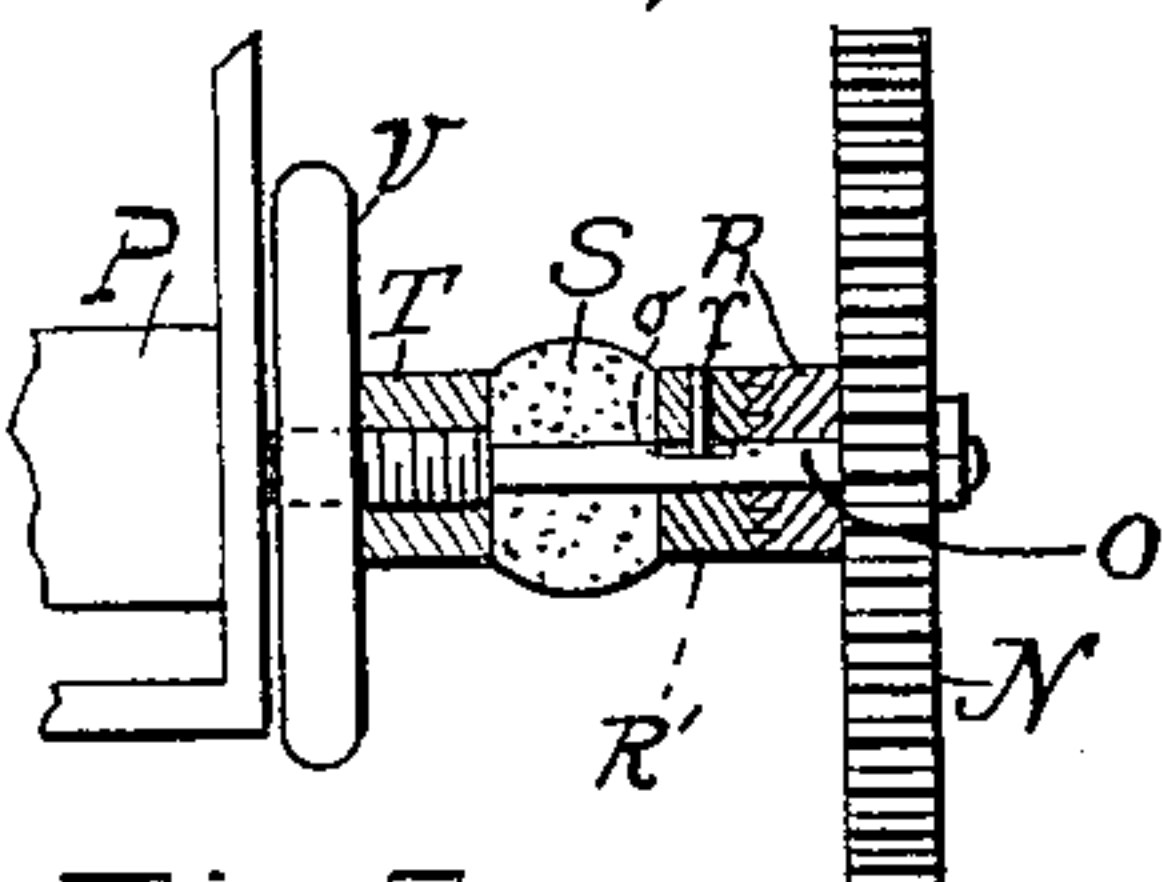
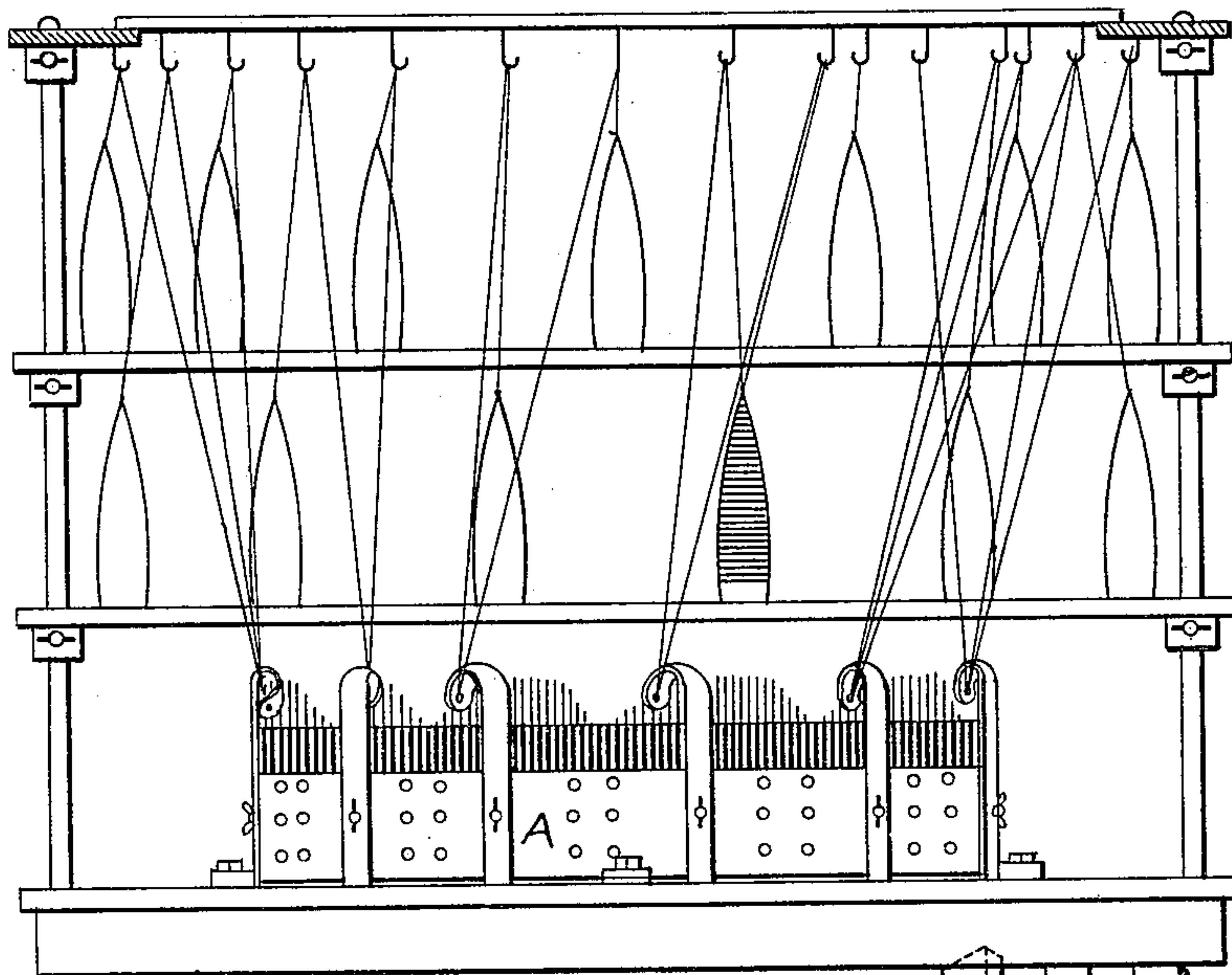
J. J. ADGATE.

TAKE-UP MECHANISM FOR KNITTING MACHINES.

No. 546,982.

Patented Oct. 1, 1895.

Fig. 1.



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TAKE-UP MECHANISM FOR KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 546,982, dated October 1, 1895.

Application filed February 7, 1896. Serial No. 537,603. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. ADGATE, a citizen of the United States, residing at Liberty, New York, have made certain new and useful Improvements in Take-Up Mechanism for Knitting-Machines, of which the following is a specification.

My invention relates to the take-up device; and it consists more particularly in the details hereinafter set forth.

In the drawings, Figure 1 shows an elevation exhibiting my take-up mechanism. Fig. 2 is a view, partly in section, of the clutch device connected with said take-up; and Fig. 3 is an end view of portions of the clutch mechanism.

Similar letters of reference designate similar parts in all the drawings.

M is a circular cogged track mounted upon a platform supported upon lugs at the lower ends of the legs of the frame and upon which travels the cog-wheel N² on the shaft Z, which by the pinion N' turns the wheel N on the shaft O of the roller P. The cog-wheel N is loose upon the shaft O and carries the toothed clutch member R, engaging with its mate R', which slides on the shaft O, but is prevented from revolving by the pin r, projecting into the groove o in the shaft O.

S is a rubber ring or cushion, and T is a nut engaging with a thread on the shaft O.

U is a hand-wheel secured to the shaft O for the purpose of turning it by hand, if desired.

In operation the take-up frame V' turns with the needle-cylinder, and the cog-wheel N², engaging with the track M, causes the shaft Z, pinion N', cog-wheel N, and roller P to revolve, drawing down the cloth as it is made. If the motion is too rapid, occasioning too great a tension on the fabric, the resistance of the roller P will cause the toothed clutch to expand, compressing the cushion S and allowing the cog-wheel N to revolve faster than the shaft O until the resistance of the shaft O is again overcome and the clutch-members are united by the expansive power of the cushion S. The resistance of the cushion S may be increased or diminished by tightening or loosening the nut T behind it.

V V are slotted arms secured to the sides of the take-up frame and carrying the upper roller P', on which the fabric is finally rolled. The cloth travels down behind the roller P', as shown in Fig. 1, in front of the roller P², behind and under the roller P, and then up in front of all the rollers and over and around the roller P', which is rotated by the cloth as it is drawn down behind and under it. This construction allows the roller P' to travel upward and away from the roller P² as the roll of fabric increases in size and to follow such a course that the fabric descending from the machine shall not be crowded out of a vertical course by the increase in size of the roll of cloth on the roller P'. By this construction I am enabled to locate the mechanism for turning the take-up device below the roll of cloth and to avoid all complicating machinery about the cloth as it is descending and as it is being rolled up.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The improved take-up device consisting of track M, cog-wheel N², shaft Z, pinion N', cog-wheel N, clutch-member R, clutch-member R' provided with the pin r, cushion S, nut T, shaft O provided with the groove o, and rollers P, P' and P², whereby the actuating mechanism is enabled to be placed below the roll of cloth, substantially as and for the purposes set forth.

2. The combination in a take-up device of the track M, cog-wheel N², shaft Z, pinion N', cog-wheel N, clutch-member R, clutch-member R' provided with the pin r, cushion S, nut T, shaft O provided with the groove o, rollers P, P' and P² and the inclined slotted arms V V carrying the roller P' whereby the actuating mechanism is enabled to be placed below the roll of cloth, substantially as and for the purposes set forth.

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