

No. 765,854.

PATENTED JULY 26, 1904.

C. PEDERSEN.

PRESSER FOOT MECHANISM FOR SEWING MACHINES.

APPLICATION FILED SEPT. 14, 1903.

NO MODEL.

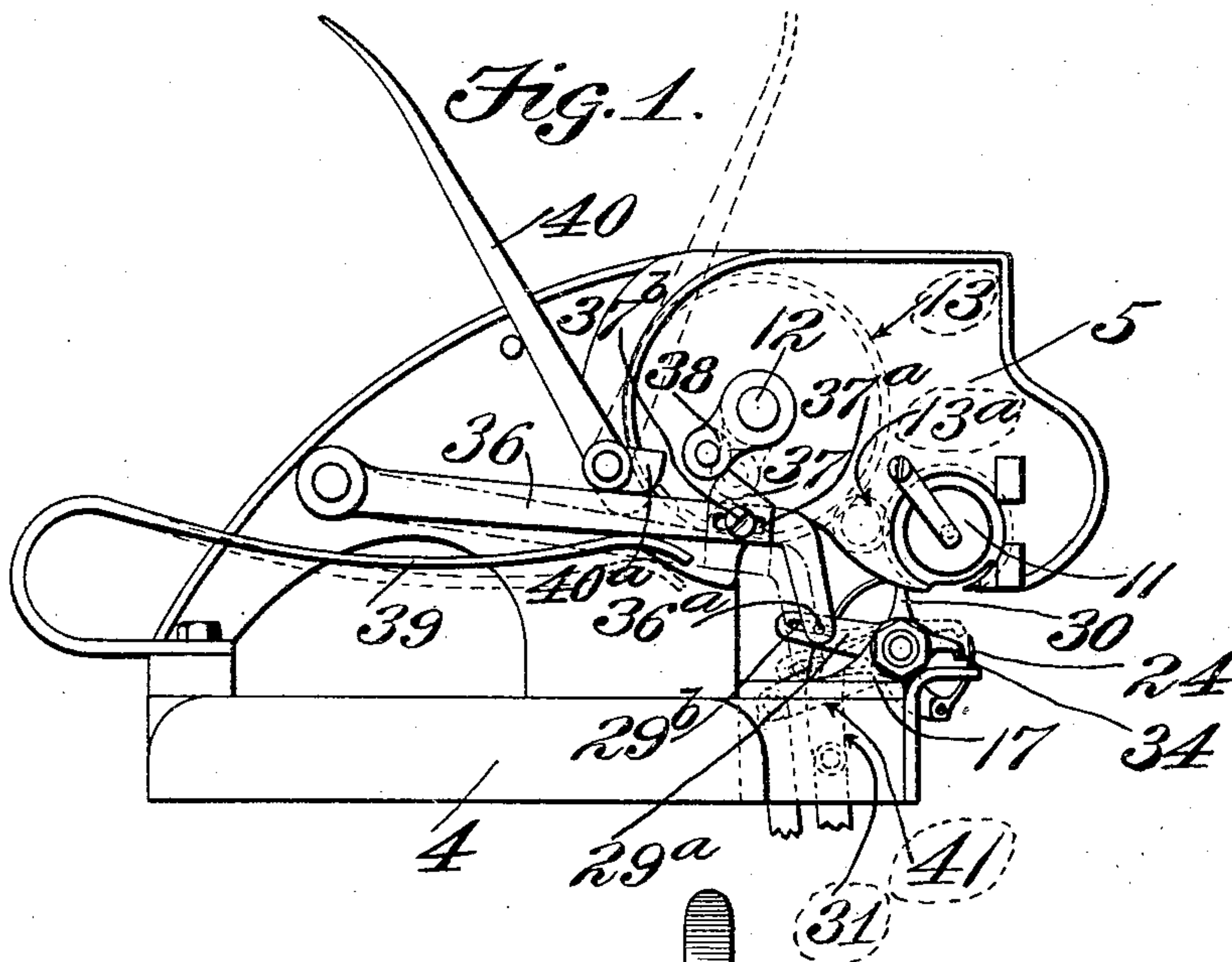


Fig. 2.

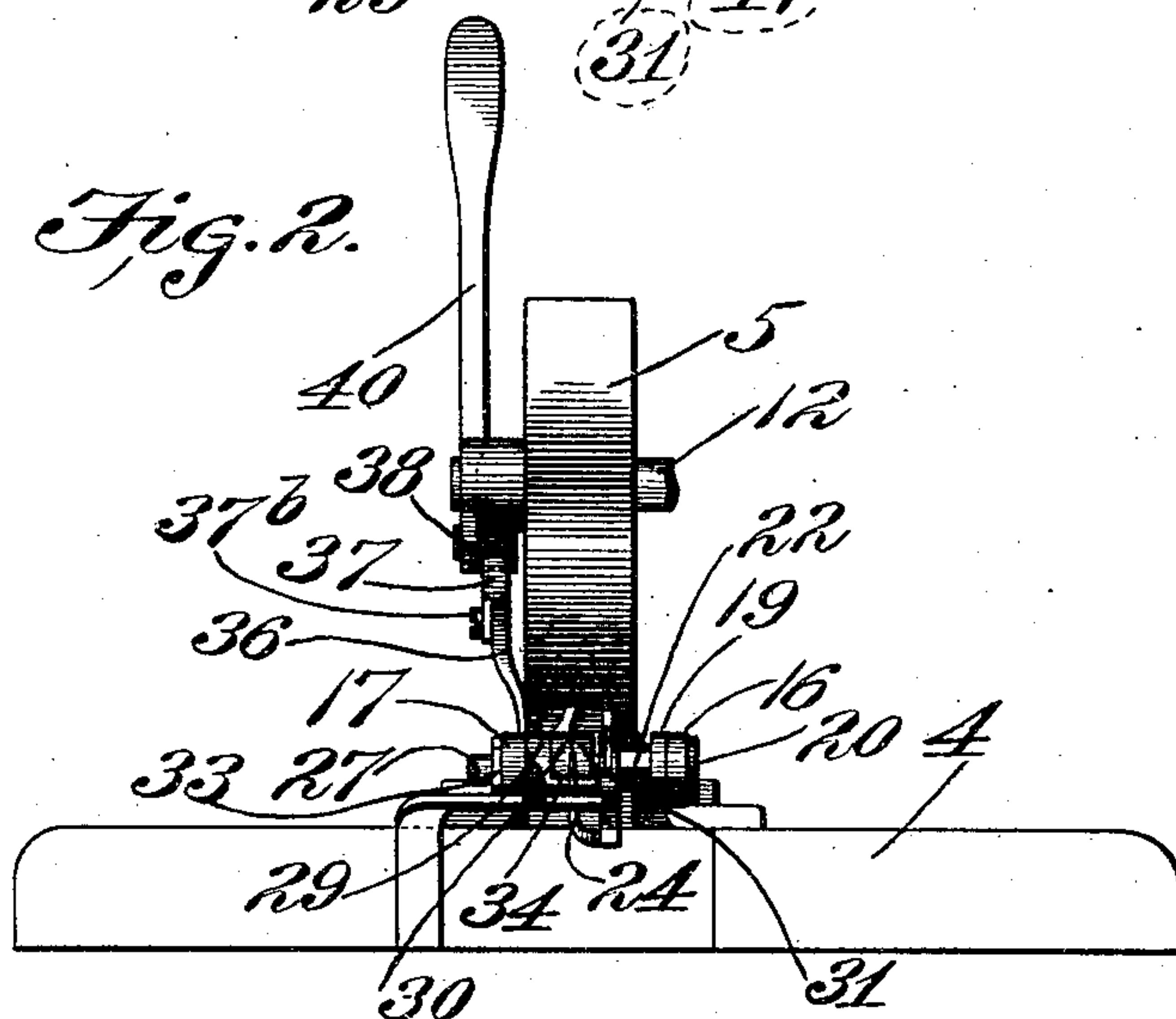


Fig. 4.

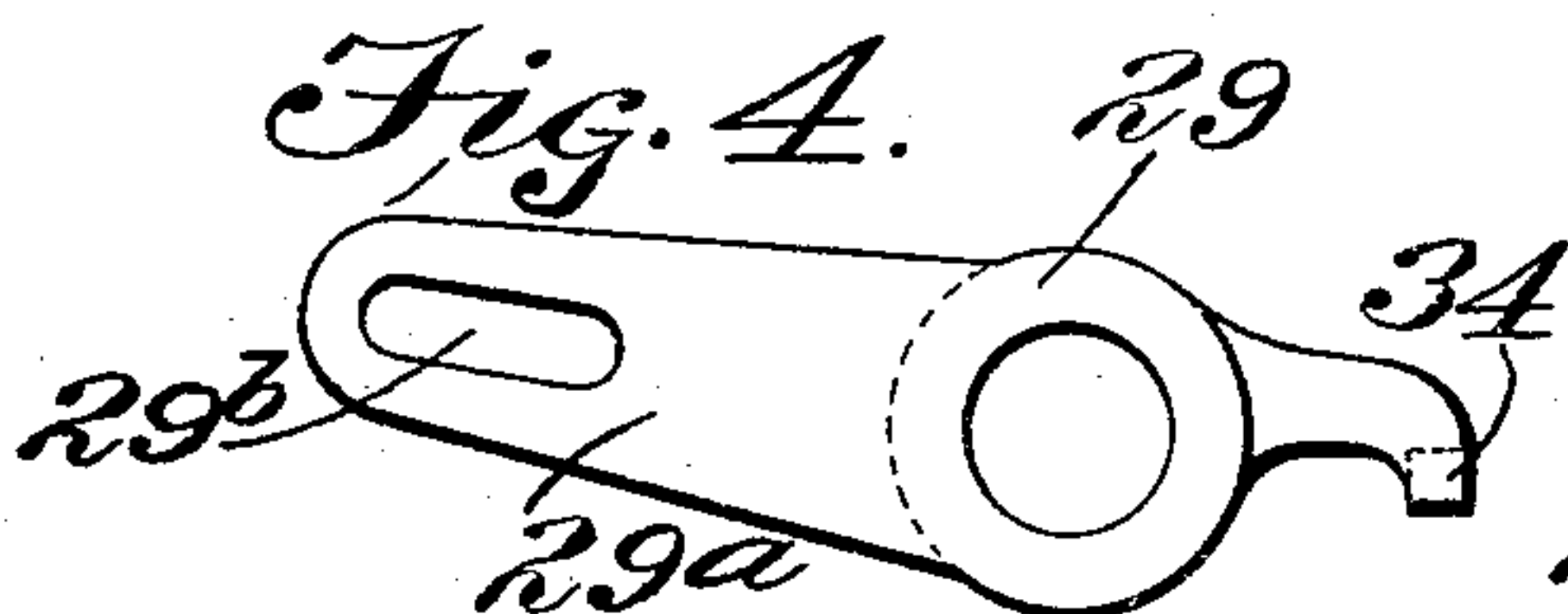
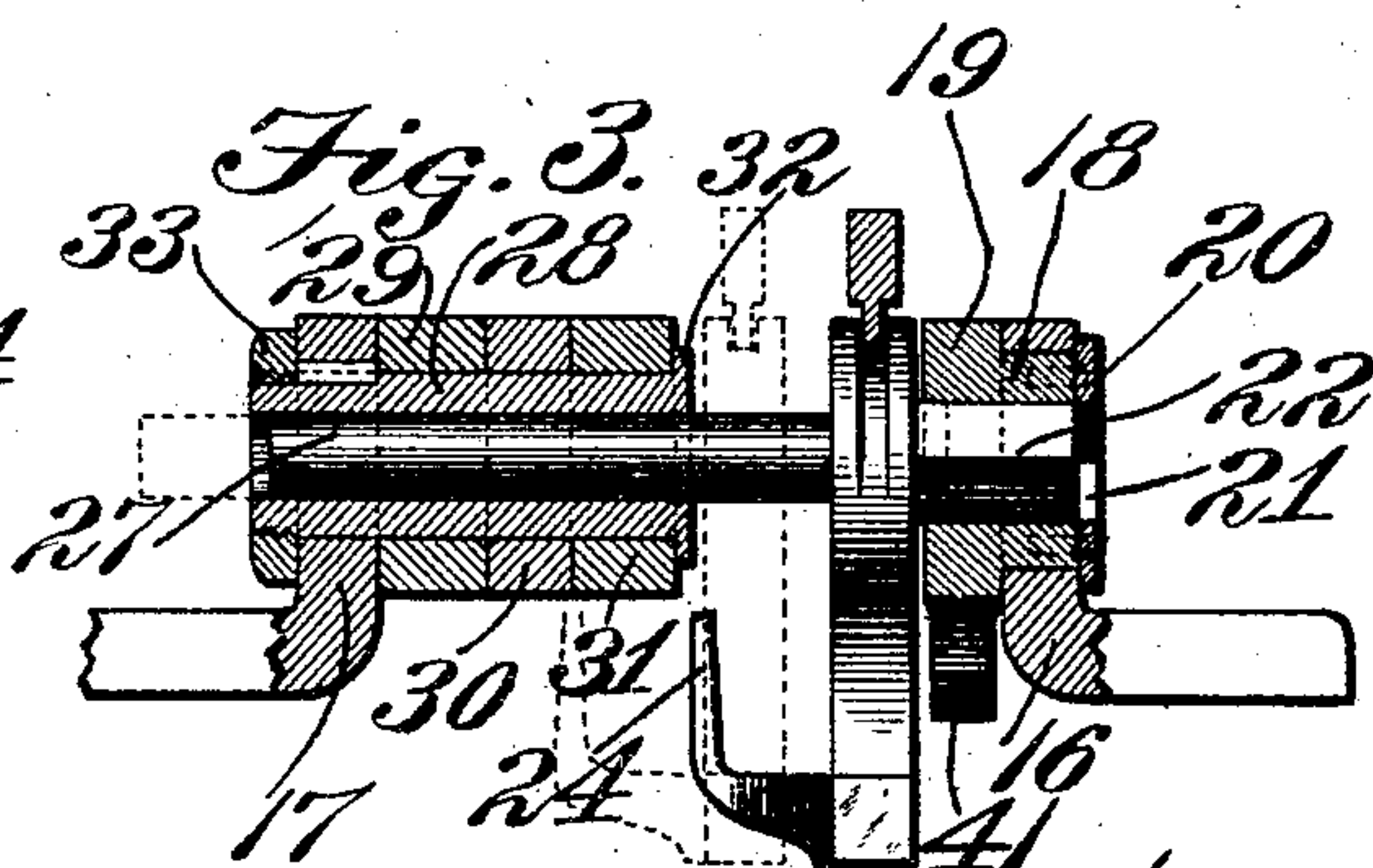


Fig. 5.



Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHRISTIAN PEDERSEN, OF ST. LOUIS, MISSOURI, ASSIGNOR TO LANDIS MACHINE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

PRESSER-FOOT MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 765,854, dated July 26, 1904.

Application filed September 14, 1903. Serial No. 173,136. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN PEDERSEN, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Presser-Foot Mechanisms, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a portion of a sewing-machine with the present mechanism applied. Fig. 2 is a front elevation. Fig. 3 is a sectional elevation showing the mounting of the presser-foot carrier. Fig. 4 is a side view of the presser-foot and its carrier, and Fig. 5 is a top plan view of the same.

This invention relates to improvements in presser-foot mechanisms for sewing-machines.

The primary object is to provide a simple structure by means of which the desired movements of the presser-foot are effected.

A further object is to provide for readily varying the time of movement of the presser-foot; and a further object is to provide a convenient, simple, and efficient manner of mounting the presser-foot.

To these ends and also to improve generally upon mechanisms of the character indicated the invention consists in the various matters hereinafter described and claimed.

Referring now more particularly to the drawings, 4 indicates the supporting-base, and 5 is a head-frame which rises from the center thereof. Said head-frame has a shaft 12 journaled therein and also provides a suitable bearing for a shuttle 11. A master-gear 13, mounted upon said shaft 12, is in driving connection with said shuttle, as through the pinion 13^a. The shuttle, the shaft, the master-gear, and the pinion are constructed and arranged in substantially the same manner as disclosed in Patent No. 730,848, granted to Joel N. Whipple June 9, 1903.

Suitable uprights or standards 16 and 17 rise from said support 4 and are provided

with journal-openings. In the journal-opening in the standard 16 is a sleeve 18, having a flange or enlargement 19 upon its inner end and a ring-plate 20, screwed or otherwise secured to its outer end, so that the standard 16 is received between said enlargement and ring-plate, and the sleeve is thus firmly held against longitudinal displacement, although it is permitted to freely rock in its bearing. A rock-arm 41, extending from said sleeve, is connected to suitable mechanism for oscillating the same. Secured against rotation in the standard 17, as by means of a suitable key or feather, is a sleeve 28, whose inner end is provided with a flange or enlargement 32 and whose outer end is threaded to receive a nut 33. A shaft 27 has a cylindrical portion received in said sleeve 28 and has a squared or otherwise non-circular portion 22 received in a corresponding opening 21 in said sleeve 18. This shaft therefore rocks with the sleeve 18, but has longitudinal reciprocation in the said sleeve 18 and the sleeve 28, suitable means being provided for longitudinally reciprocating said shaft. An awl 24 is suitably secured to said shaft to move therewith in both its rocking and longitudinal movements. Mounted upon said sleeve 28 to rock about the same is the presser-foot carrier 29, the needle-guide carrier 30, and the needle-carrier 31, being also mounted upon said sleeve, and said three carriers being confined between the flange 32 and the standard 17.

The presser-foot 34 extends forwardly from said presser-foot carrier 29, and extending rearwardly from said presser-foot carrier is a rock-arm 29^a, provided with an elongated longitudinal slot 29^b. Pivoted upon said head 5 is a lever 36, whose forward end is provided with a pin 36^a, which enters said elongated slot in said rock-arm. A spring 39 has one end secured to said base 4, while its free end bears upon the under side of said lever 36, and thus tends to normally hold the latter in raised position, the presser-foot being in work engaging or operative position when said lever is in said raised position.

A cam-block 37 upon said lever 36 is in the

path of movement of an arm or tappet 38, mounted upon said shaft 12 and rotating therewith. When said arm or tappet acts upon said cam-block, the said lever 36 is depressed, 5 and the presser-foot is raised, while as soon as said arm passes out of engagement with said block the spring 39 serves to return the presser-foot to work-engaging position and to hold the same there until the tappet again 10 acts upon the cam-block. Thus the presser-foot is controlled and operated in a very simple and effective manner. A hand-lever 40, pivoted to the said head-frame 5, has a cam end 40^a lying above the said lever 36 and adapted to engage the same, so that the presser-foot 15 can be manually operated when desired.

Preferably the cam-block 37 is provided with an elongated slot 37^a, through which passes the stem of a headed screw 37^b, which 20 is seated in said lever 36. Thus the position of said cam-block upon said lever 36 can be quickly and conveniently adjusted in order to vary the position of said cam-block with relation to said tappet 38. In this manner the 25 time of operation of the presser-foot can be controlled.

I am aware that minor changes in the construction, arrangement, and combination of the several parts of my device can be made 30 and substituted for those herein shown and

described without in the least departing from the nature and principle of my invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is— 35

In a presser-foot mechanism, the combination with a support, an oscillatory presser-foot, and a rotatable shaft, of a lever pivoted at one end to said support to swing in a plane at substantially right angles to the axis of said 40 shaft, constant connection between the other end of said lever and said presser-foot, whereby said presser-foot is rocked by said lever by rocking of the latter in either direction, a cam-block upon said lever intermediate the ends 45 of said lever and adjustable longitudinally of the latter, a tappet upon said shaft and adapted in the rotation of said shaft to strike said block to rock said lever in one direction, and a spring bearing against said lever for re- 50 versely locking the latter, substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 31st day of August, 1903.

CHRISTIAN PEDERSEN.

Witnesses:

GALES P. MOORE,
GEORGE BAKEWELL.