

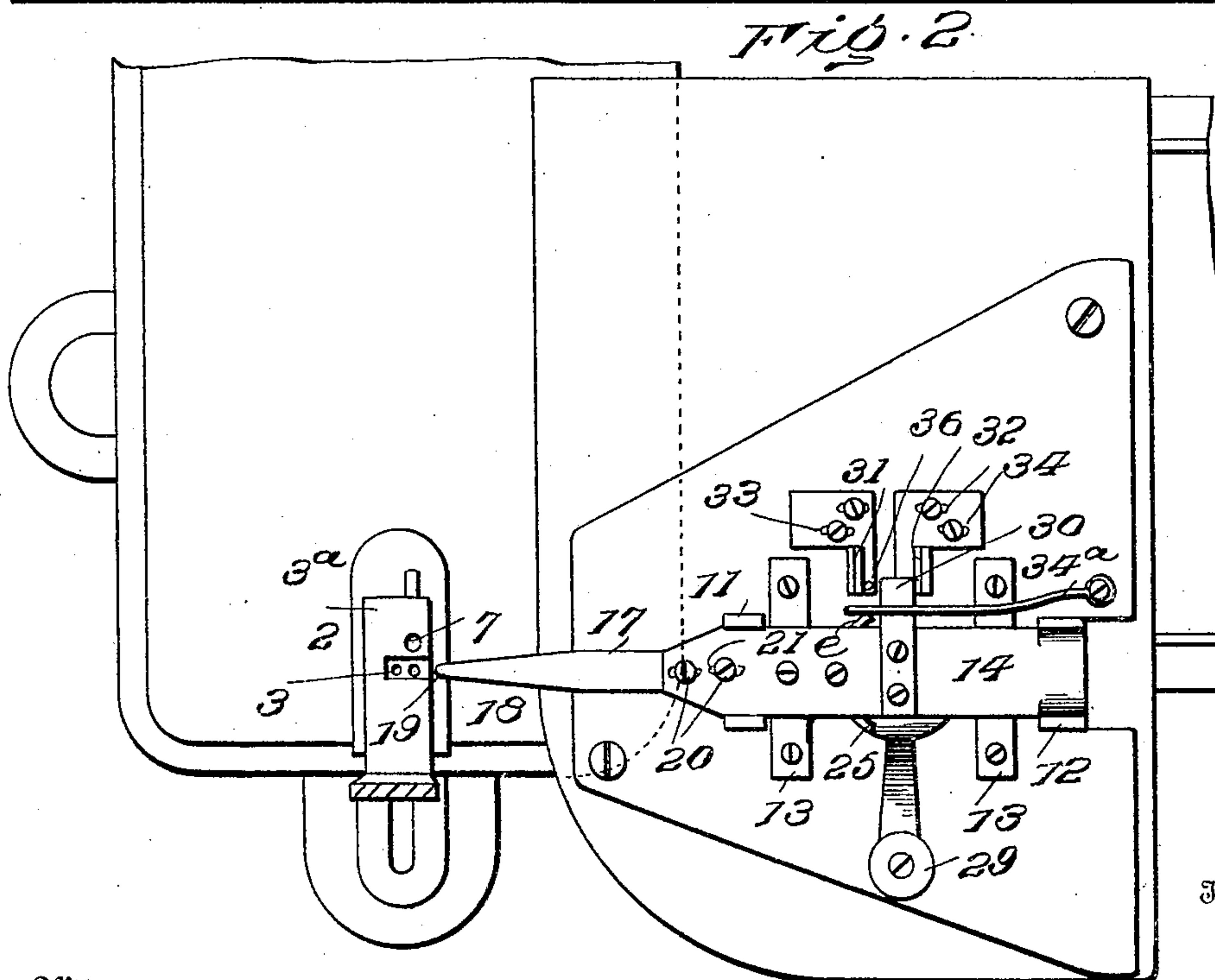
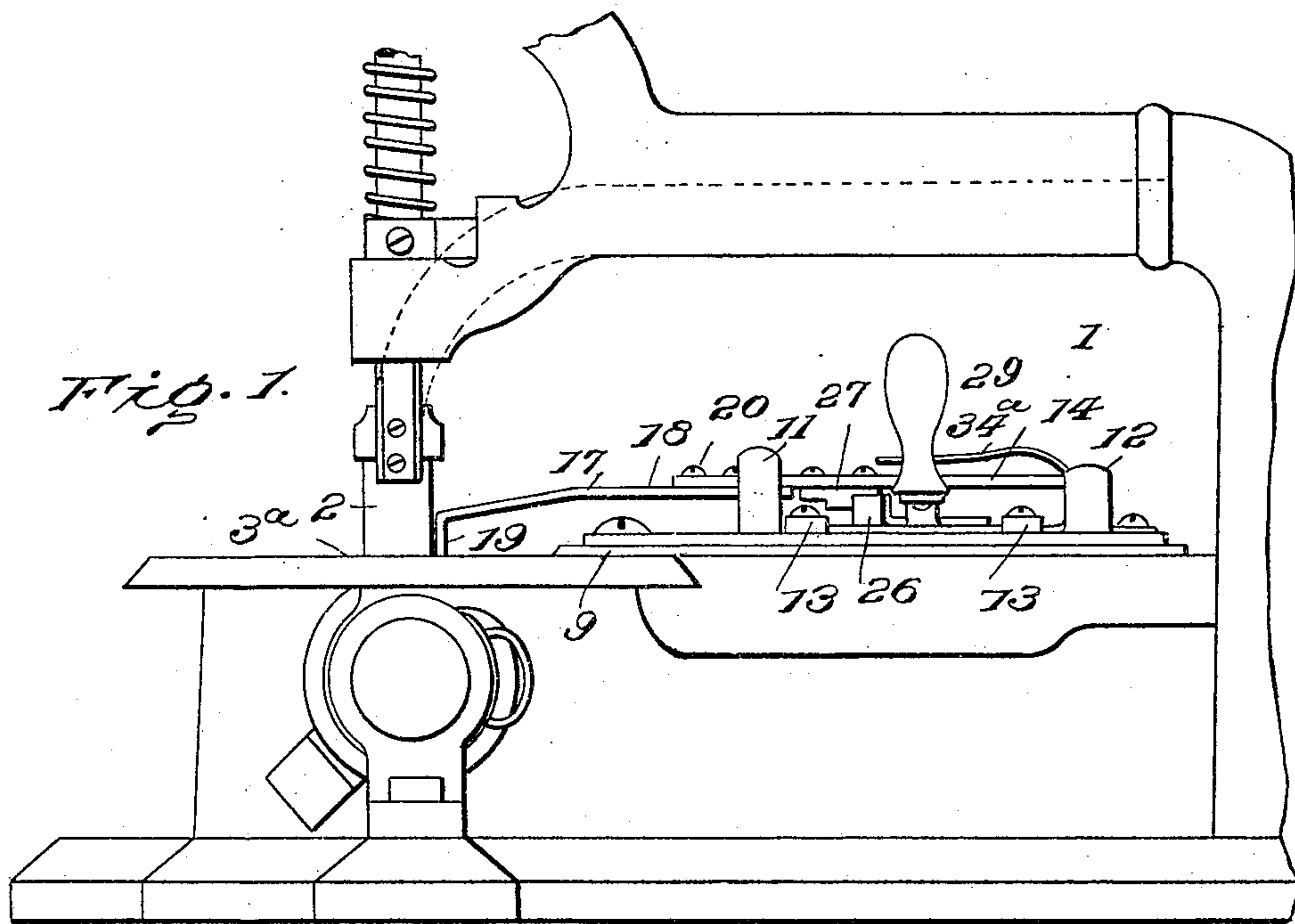
No. 814,513.

PATENTED MAR. 6, 1906.

H. BRYCE.
GUIDE FOR SEWING MACHINES.

APPLICATION FILED MAY 18, 1905.

3 SHEETS—SHEET 1.



Inventor

Witnesses

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3 SHEETS—SHEET 2.

Fig. 3.

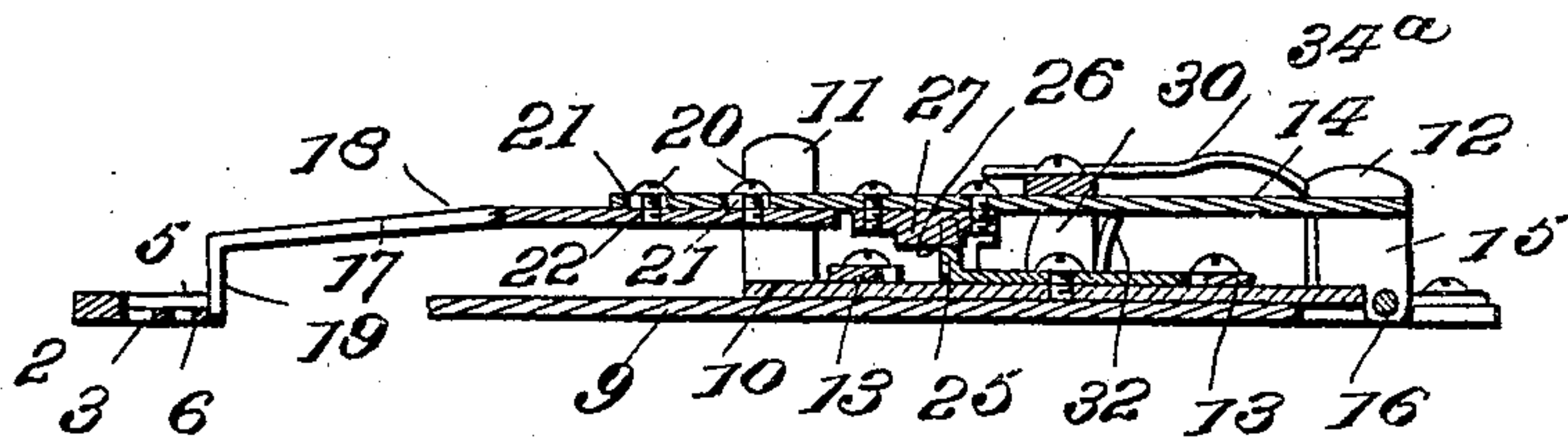


Fig. 4.

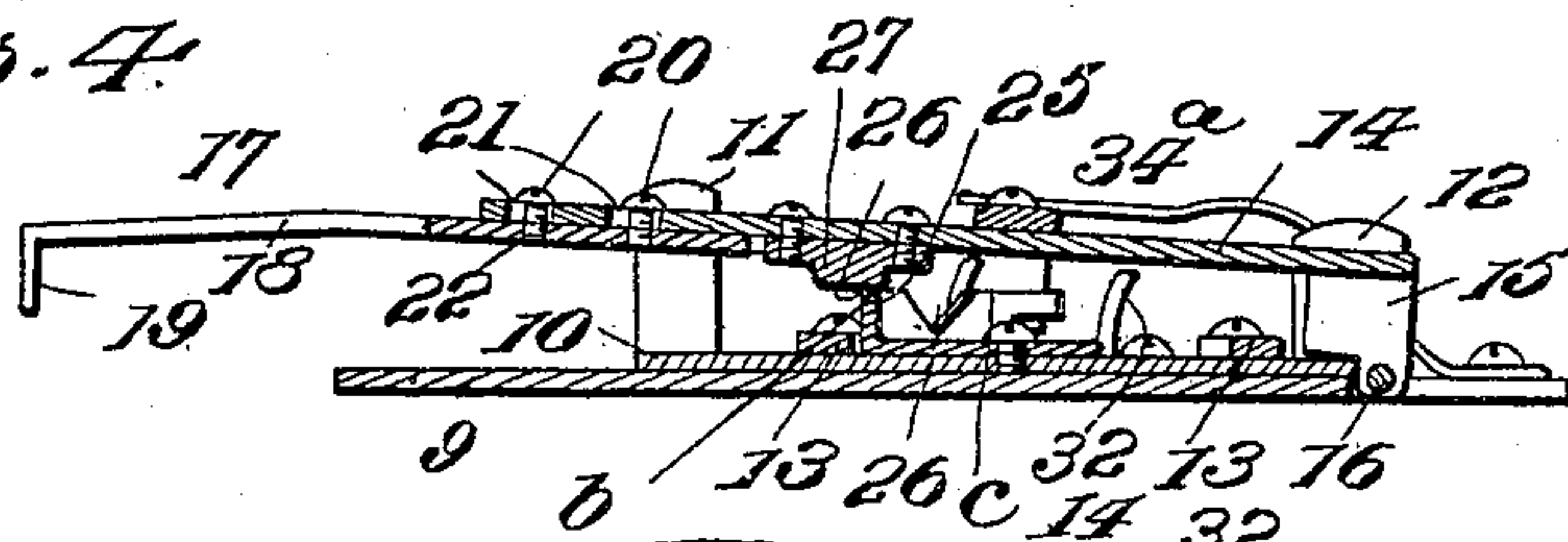


Fig. 5.

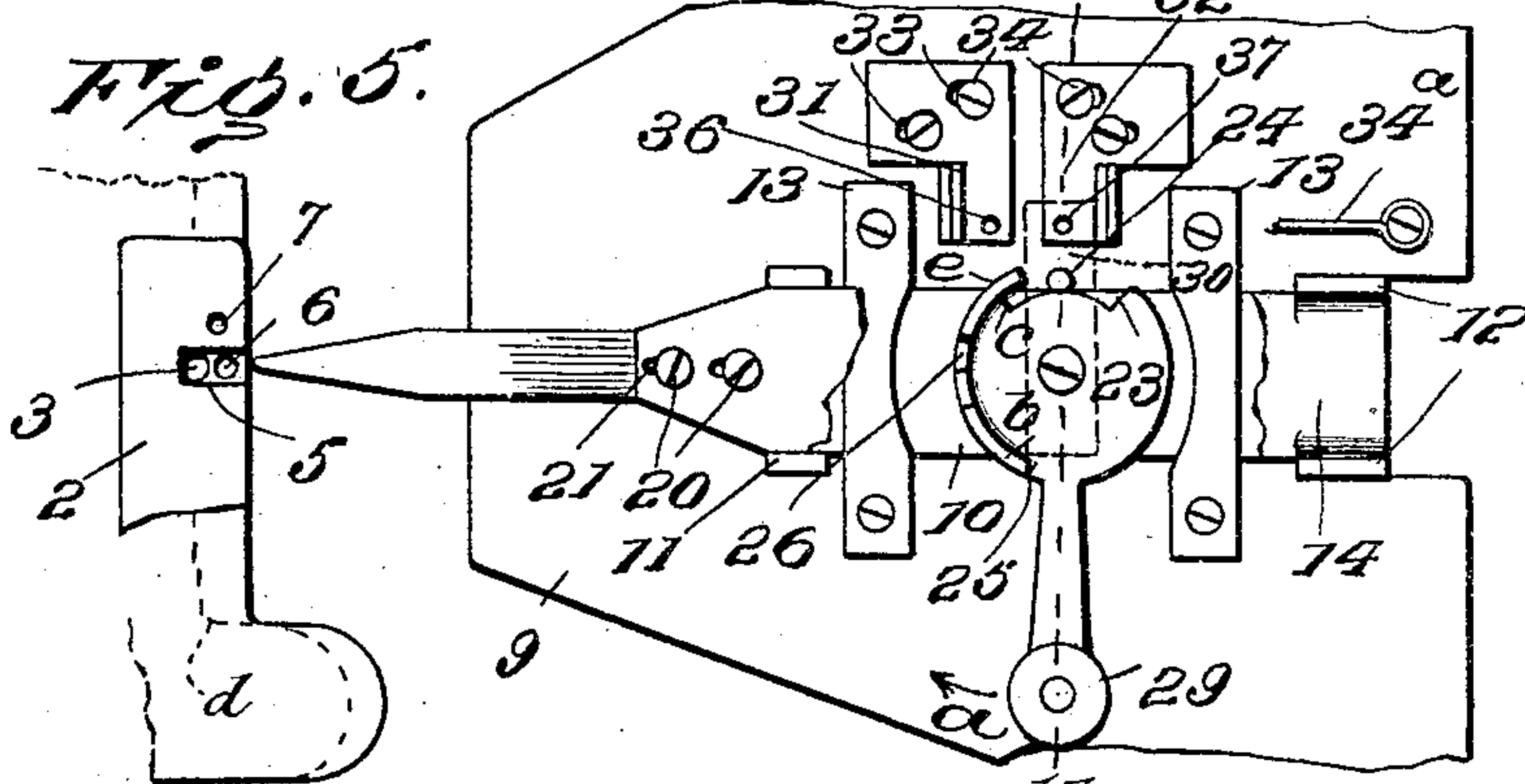


Fig. 6.

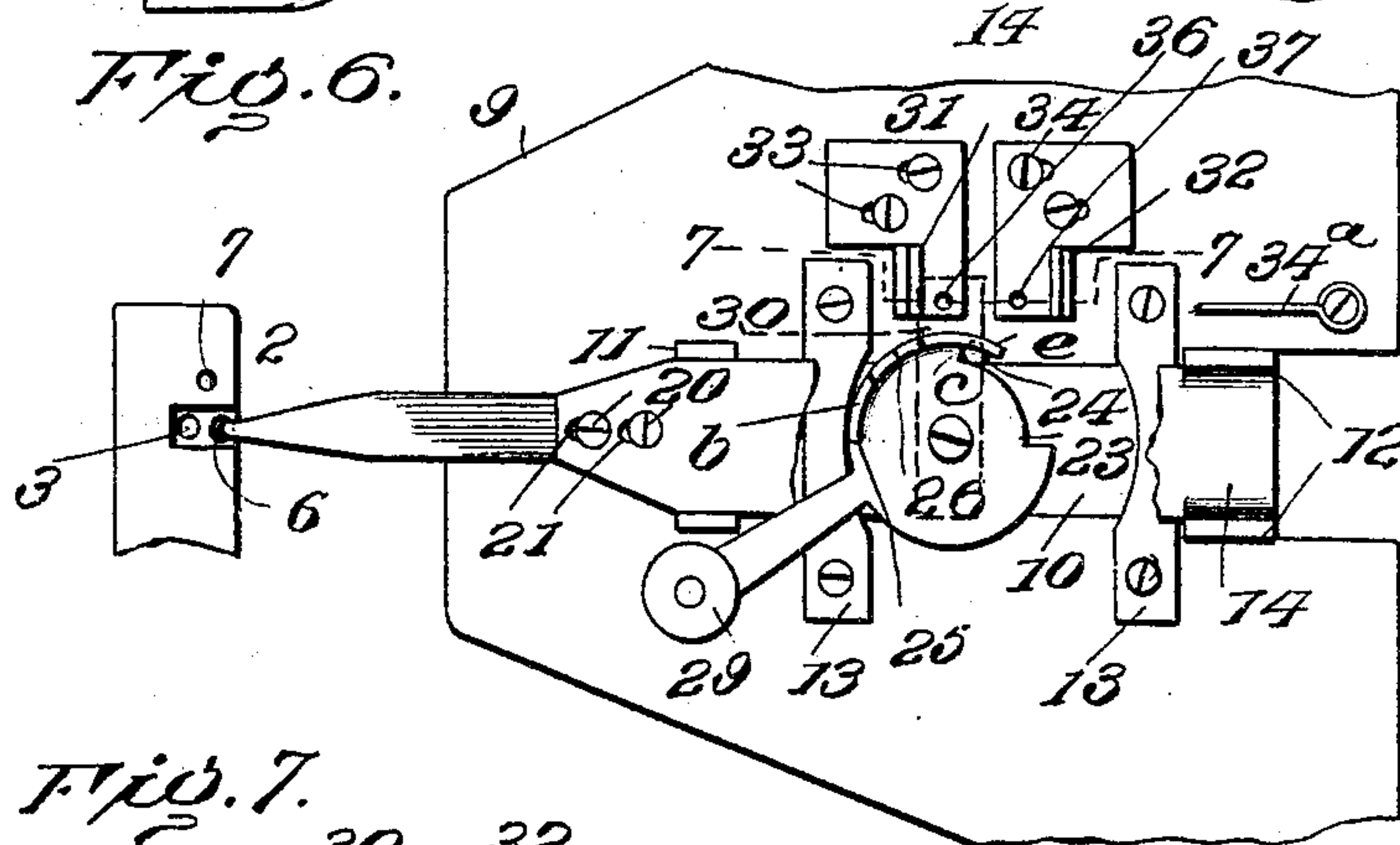
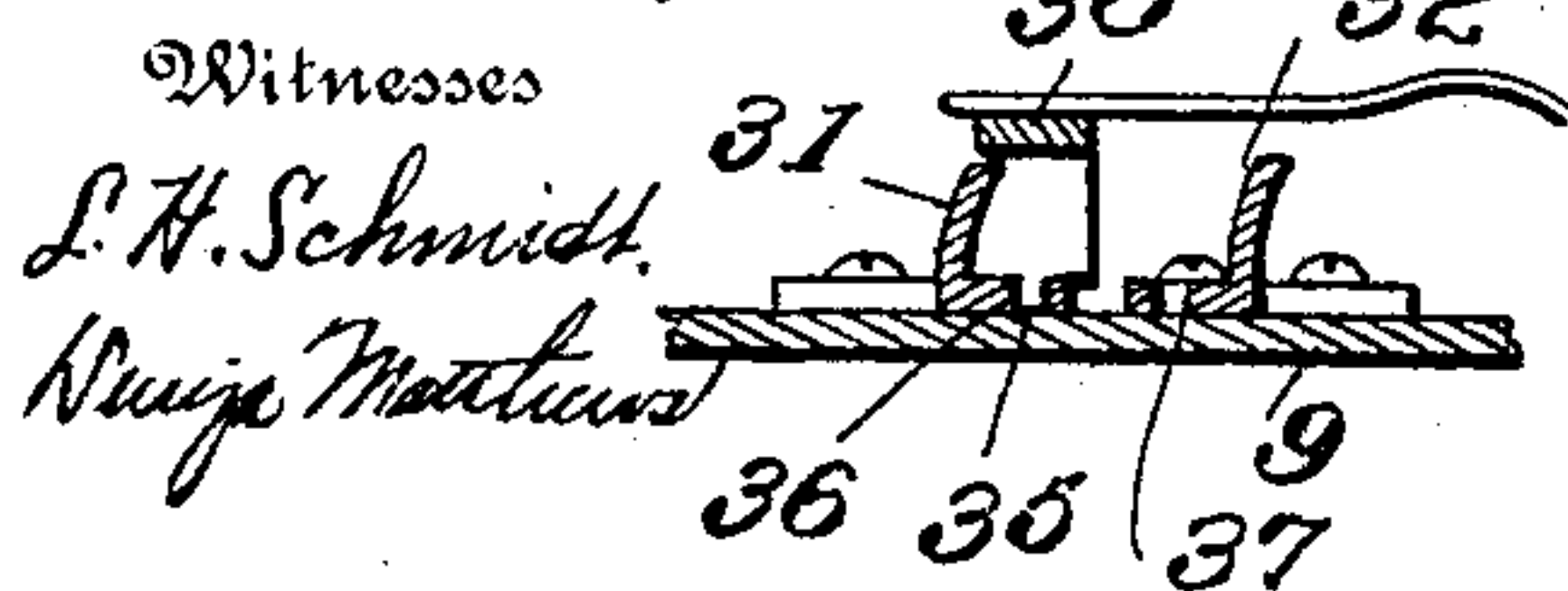


Fig. 7.



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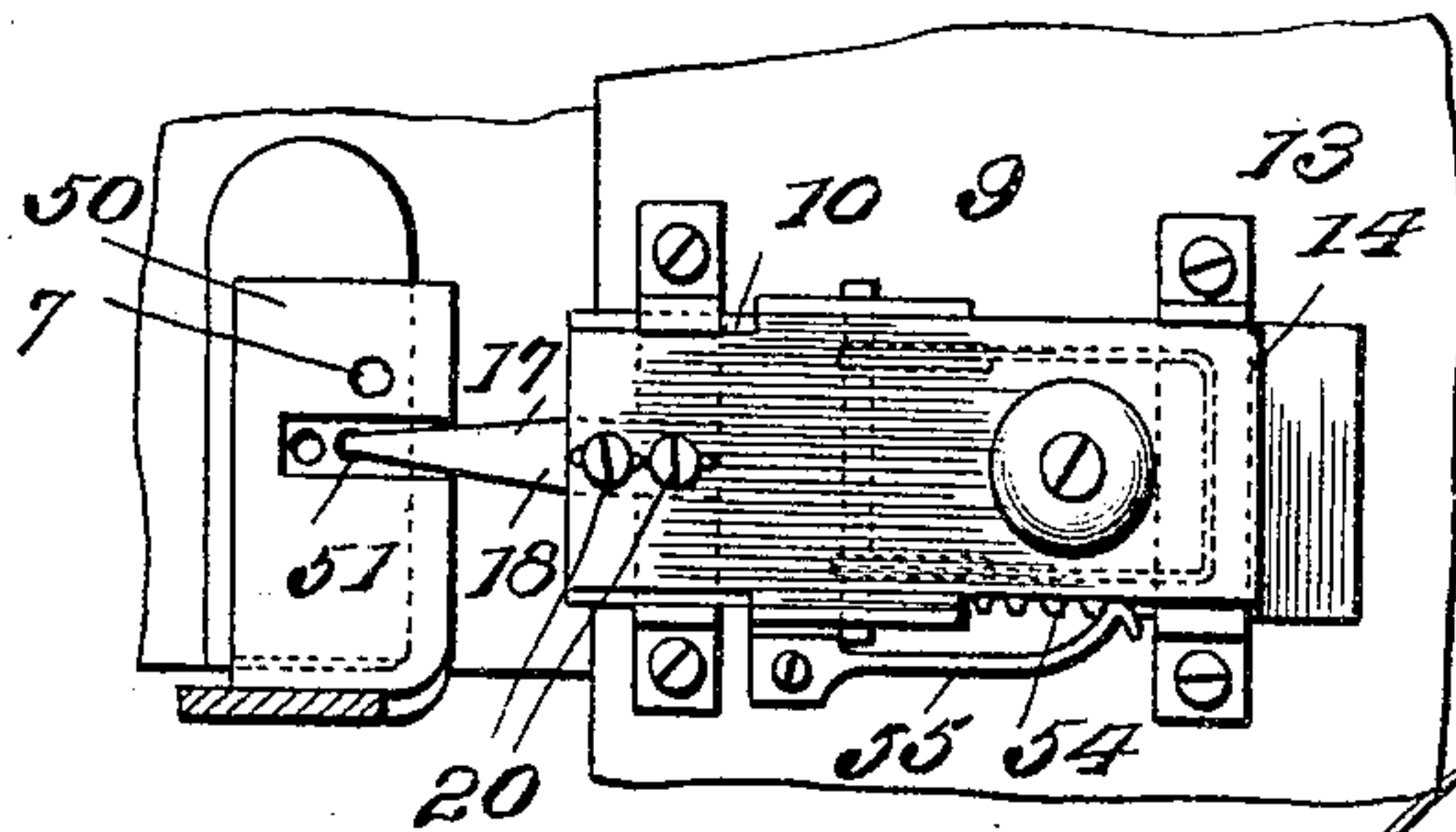
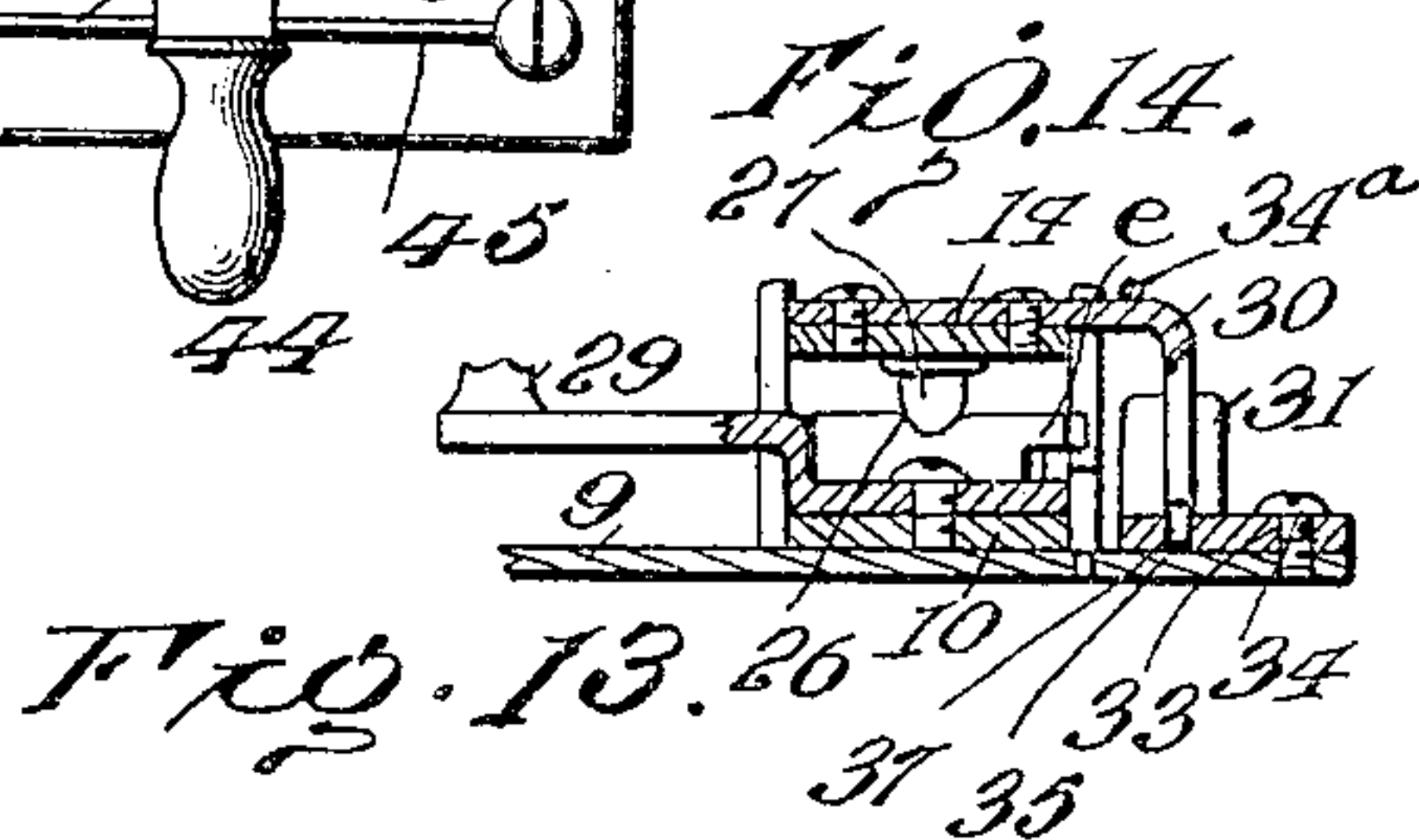
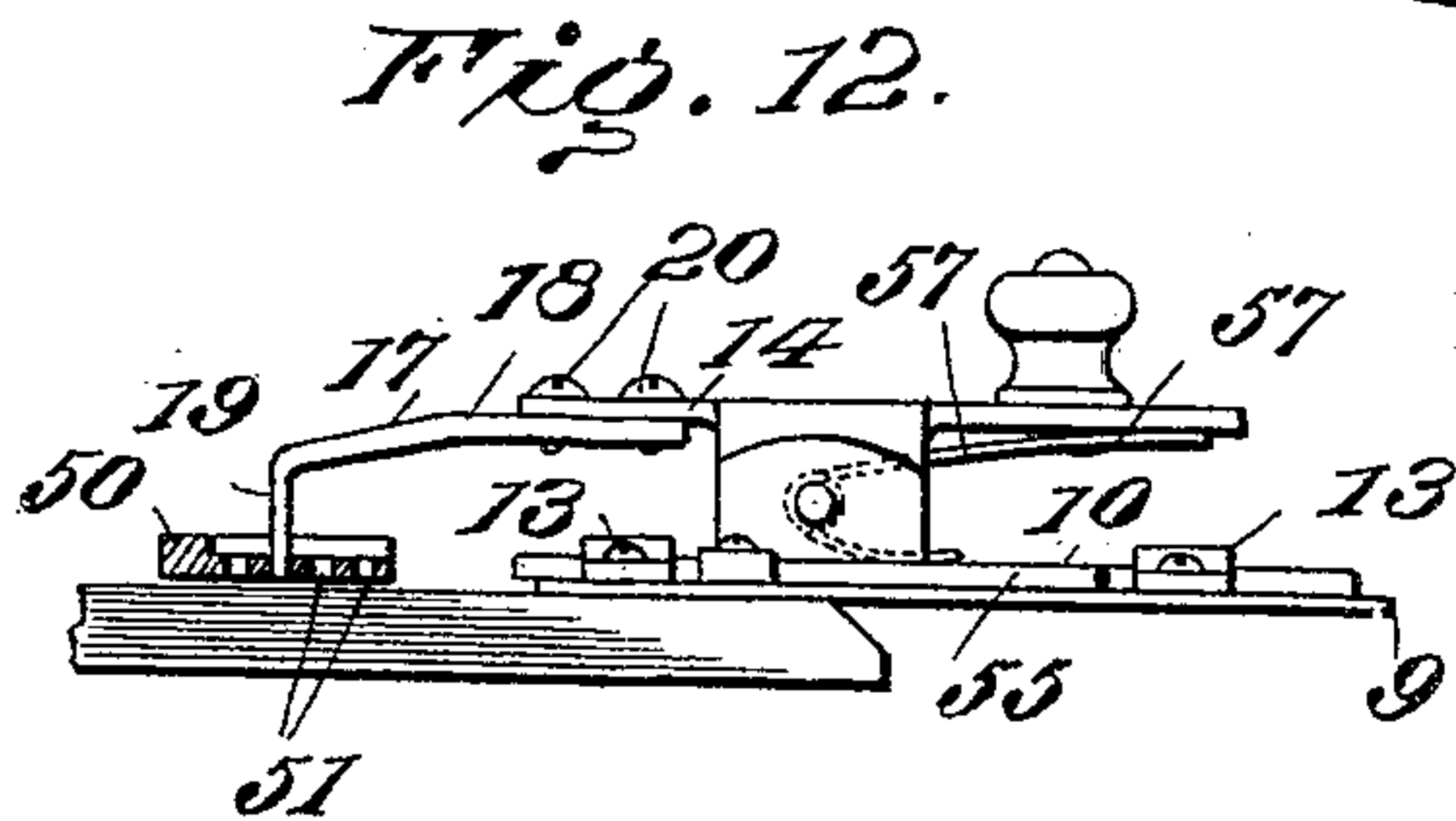
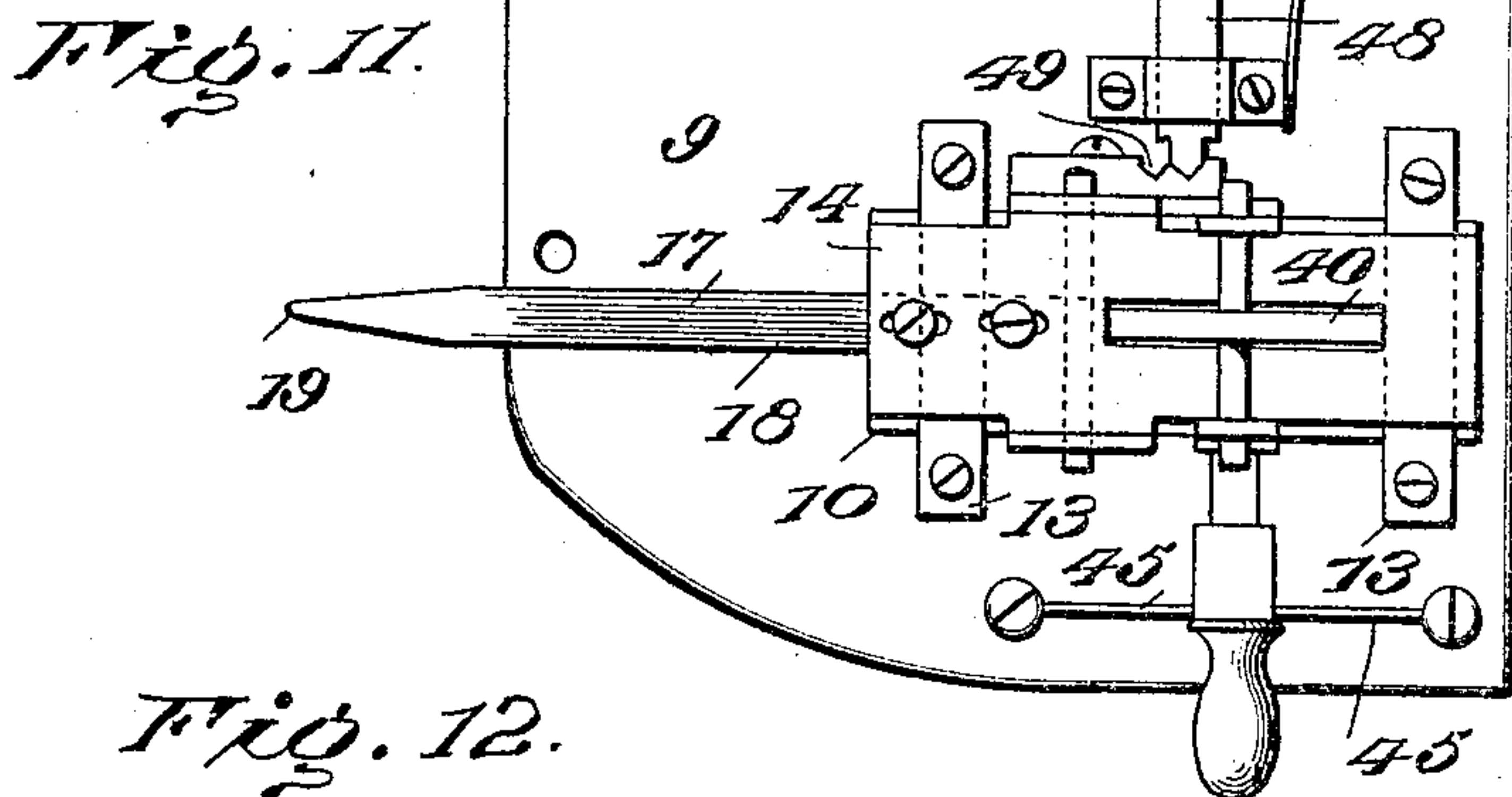
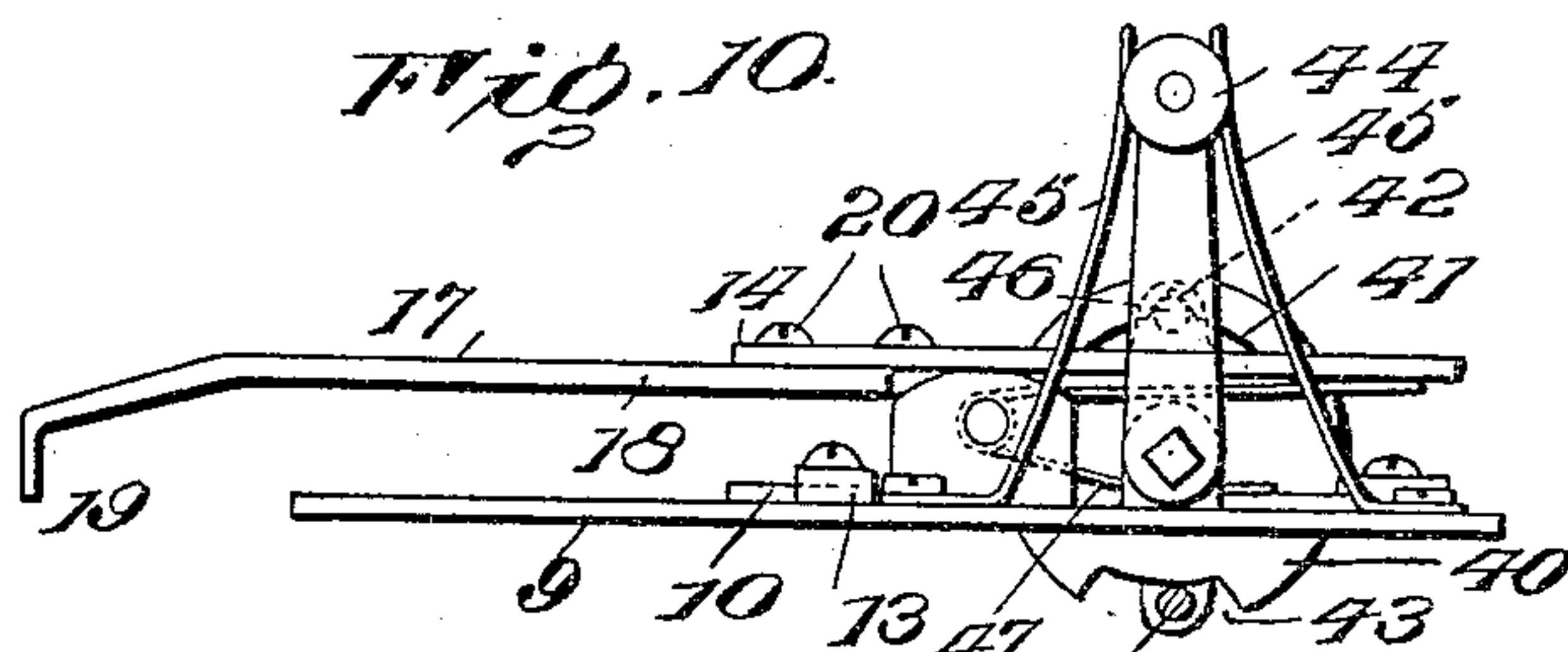
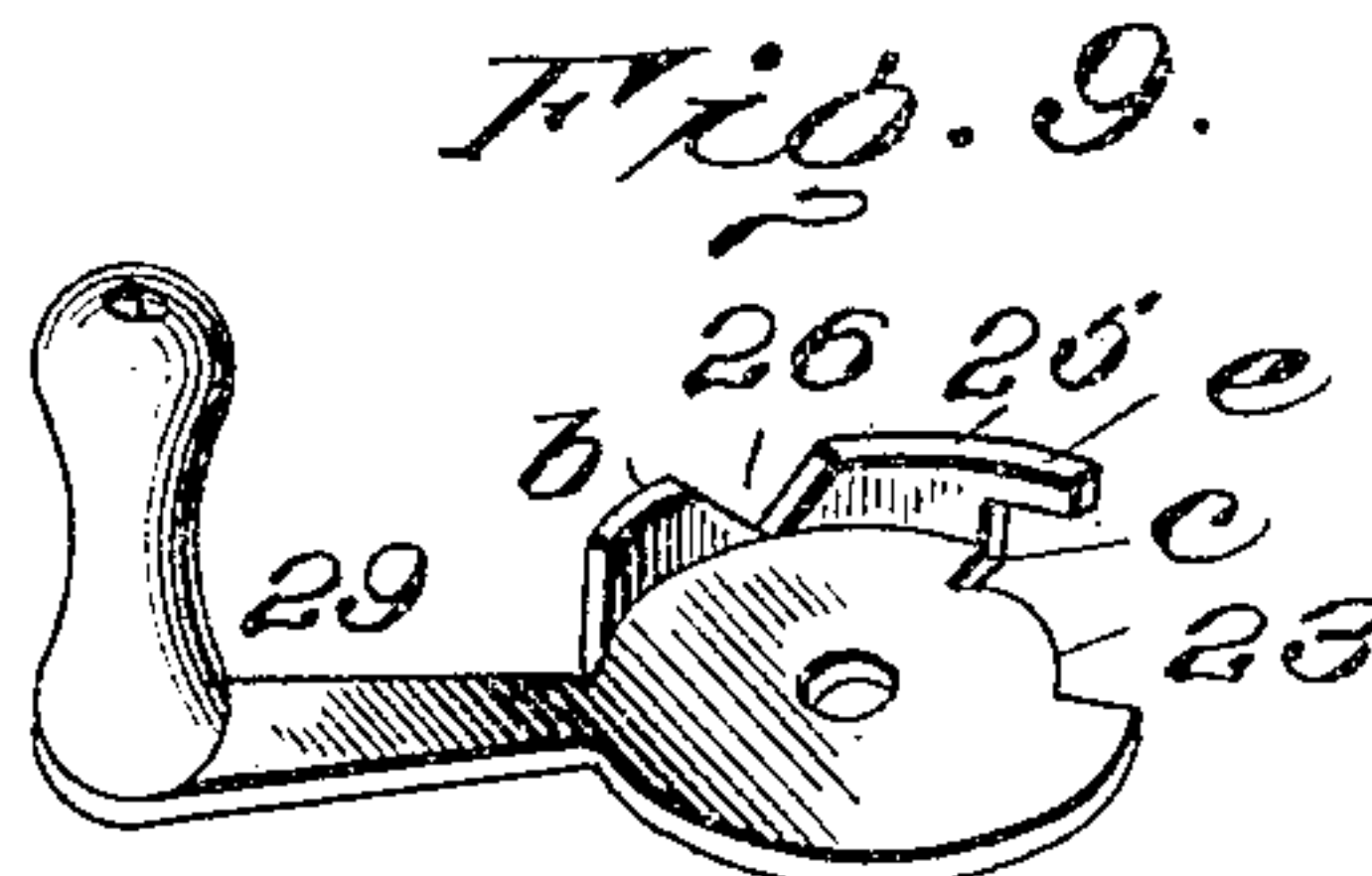
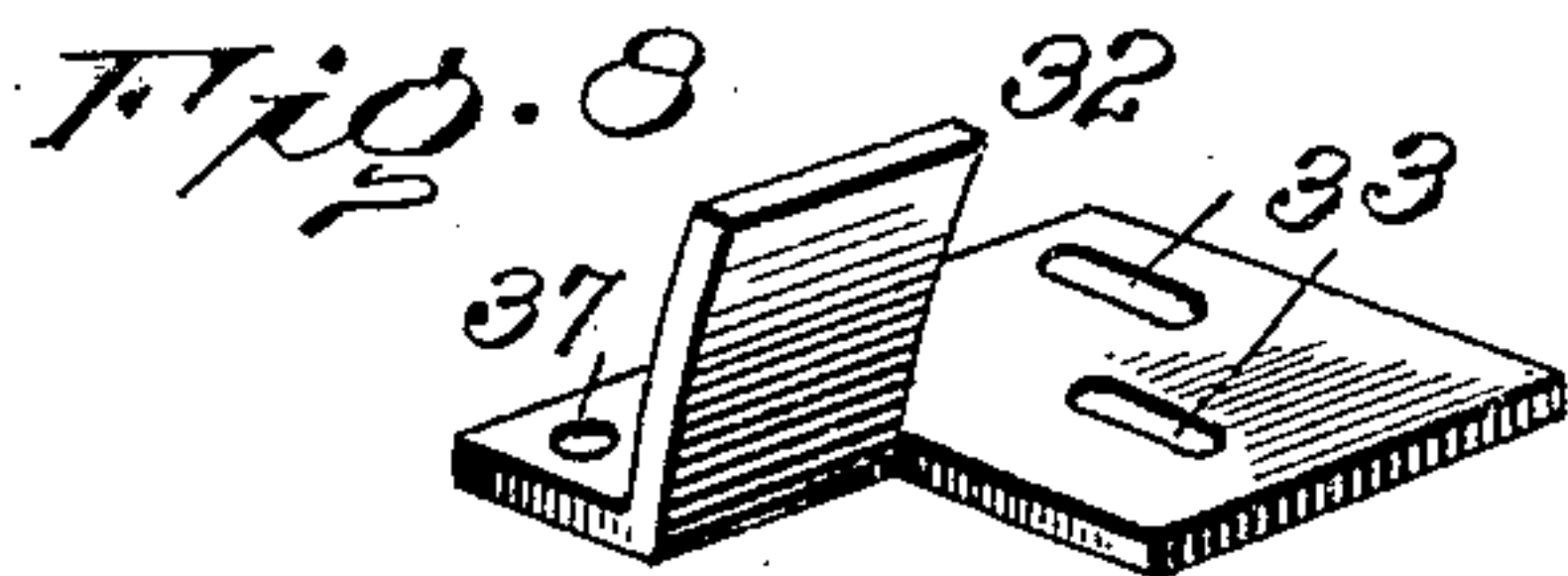
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

HENRY BRYCE, OF COHOES, NEW YORK.

GUIDE FOR SEWING-MACHINES.

No. 814,513.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed May 18, 1905. Serial No. 261,006.

To all whom it may concern:

Be it known that I, HENRY BRYCE, a citizen of the United States, residing at Cohoes, in the county of Albany and State of New York, have invented new and useful Improvements in Guides for Sewing-Machines, of which the following is a specification.

This invention relates to improvements in guides for sewing-machines, primarily used for running lines of stitches at different distances from the respective edges of the fabric operated upon.

The invention comprehends a gage adapted to be elevated, then moved toward or from the sewing-machine needle, and lowered and locked to change the line of stitching from the edge of the fabric.

The invention further consists in providing in a movable gage adapted to be raised in its movement means whereby the gage may be held in its elevated position while the operator adjusts the fabric to accommodate the change in the line of stitches and means for locking said gage against accidental displacement after it is adjusted.

Other objects and advantages will be hereinafter referred to, and be particularly pointed out in the claims.

In the drawings, Figure 1 is an elevation of my invention applied to a sewing-machine. Fig. 2 is a plan view of the same. Fig. 3 is a vertical central section showing the gage lowered. Fig. 4 is a similar view showing the gage elevated and moved to change its location relative to the needle. Fig. 5 is an enlarged diagrammatic view, the parts being in the position shown in Fig. 3. Fig. 6 is a similar view, the parts being shown as in Fig. 4. Fig. 7 is a transverse section on the line 7-7, Fig. 6. Fig. 8 is a detail view of one of the adjustable stops. Fig. 9 is a detail view of the operating-cam. Fig. 10 is an elevation of a different form of my invention. Fig. 11 is a plan view of the same. Fig. 12 is an elevation of another form of my invention. Fig. 13 is a plan view of the same. Fig. 14 is a cross-section on the line 14-14, Fig. 5.

The same characters refer to like parts in all the figures.

1 represents a conventional sewing-machine; 2, the presser-foot; 3, the needle-hole, and 3^a the work-support. The presser-foot is provided with the usual needle-opening, and extending therefrom to the outer edge is a recess 5, in which is formed a gage-receiv-

ing opening 6. To one side of the opening 6 is located a sight-opening 7 to permit of the operator observing the progress of the fabric being stitched.

A base-plate 9 is fastened to the sewing-machine, and it carries my improved gage. A slidable plate 10, formed with two sets of upwardly-extending ears 11 and 12, is guided on the base-plate 9 by straps 13 13. The ears 11 and 12 are for the purpose of guiding the gage-carrier in its movement, and at the same time they serve to prevent lateral displacement of said carrier during operation.

14 indicates a gage-carrier provided with ears 15, which fit between ears 12 and pivoted thereto by a pin 16. To the forward end of the carrier is adjustably mounted a gage-bar 17, which consists of a body 18 and a depending gage 19.

The gage is rendered adjustable by set-screws 20, passing through slots 21 and taking into openings 22.

Pivoted to the slidable plate 10 is a cam for first raising the gage and then moving it while elevated to alter its distance from the needle. The cam consists of a disk having a notch 23, the end walls of which cooperate with a stationary pin 24 on the base 9, an upwardly-extending flange 25, formed with a notch 26, which cooperates with a lug 27, depending from the gage-carrier 14, and an operating-handle 29. A lug 30 extends outwardly from the carrier 14, said lug coacting with a pair of adjustable stops 31 and 32, each of which is formed with slots 33, and through these slots pass screws 34. A spring 34^a, secured to the base-plate 9, bears on the lug 30 to normally hold the gage down on the work-support of the sewing-machine. A pin 35 extends from the lug 30, and it is adapted to fit into one of two openings 36 and 37, formed in the stops 31 and 32 to lock the gage in position after it has been moved.

In operation the gage is located, for instance, as shown in Fig. 5, to guide a collar to receive a row of stitches about one-fourth of an inch from the edge. When so positioned, the gage 19 is just beyond the edge of the presser-foot and the lug 27 is in engagement with the notch 26 and the pin 35 in engagement with the opening 37, stop 32 limiting the movement of the lug 30 to properly locate the gage, whereby to produce the stitches at the exact predetermined distance from the collar edge. To move the gage to decrease the distance between the edge of

the collar and the proposed row of stitches, handle 29 is turned in the direction of the arrow *a*, the portion *b* of flange 25 forcing the lug 27 out of engagement with the notch 26, hence raising the gage 19 to above the plane of the presser-foot, and as the movement of handle is continued wall *c* of notch 23 contacts with pin 24 and advances the carrier and gage until lug 30 contacts with stop 31, at which time the gage is directly over the opening 6 and pin 35 above its opening 36. In stitching collars it is vitally important that the gage be held in this elevated position until the operator completely turns the corner-stitch, (indicated at *d*.) This corner-stitch is made without the use of the guide, because of the slight increase in distance between the corner of the collar and the stitches, due to the tab extending beyond the body of the collar. These stitches having been made, the operator reverses the movement of the handle until the notch 26 comes opposite the lug 27, when the latter falls therein, the gage 19 passing into opening 6 and the pin 35 into its opening 36, which positively locks the gage in fixed position and prevents accidental displacement of the same during the stitching operation. The notch and its coöperating lug also serve to permit of the lowering of the gage when the parts are positioned as shown in Fig. 5, the lug riding on the portion *e* of the flange 25 when the gage is elevated and moved to this position, it being essential that the guide be held elevated for a period of time and then lowered, as before described in connection with the other movement, the pin 35 dropping into opening 37 and locking the gage. Spring 34^a acts to throw the point of the gage down on the work - support, as will be understood. When it is desired to increase the distance between the edge of a collar and a row of stitches, screws 34 are released and the stops 31 32 adjusted, and for minor adjustment in the length of the guide screws 20 are released and the guide is positioned accordingly and the screws are again tightened.

In the form of the invention shown in Figs. 10 and 11, 40 indicates an oscillating disk formed with a slot 41, seat 42, and notch 43, the disk being mounted on the guide-carrier. A handle 44 is secured to the shaft of the disk and operates between two springs 45. A stationary bar 43^a is located in the path of the notch 43, the end walls of the latter engaging the bar to move the guide. A pin 46 on the gage-carrier fits in the slot 41 and is adapted to be engaged by the notch 43 to allow of the gage being lowered, springs 47 acting to throw the carrier and gage down when the notch is opposite the pin 43^a. A spring-actuated locking-bar 48 engages notches 49 on the carrier to hold the gage after it is positioned by the movement of the disk. In this modification the operator

turns the handle, which first elevates the gage, and by continued movement one of the end walls of notch 43 will strike the pin 43^a, which moves the carrier the required distance for the next row of stitches; but with this construction it is necessary that the operator hold the handle against the tension of one of the springs 45 when turning the corner in the stitching operation.

A further modification of the invention is disclosed in Figs. 12 and 13, wherein 50 represents a presser-foot formed with a recess and a series of openings 51 to accommodate the gage, a plate which is movable with the guide being formed with a series of notches 54, spaced to correspond with the openings, and a spring-finger 55 engages one of the notches to hold the gage in its proper position. The gage and its carrier in this instance are rocked by depressing a knob and then moving said carrier until the desired opening 51 is reached, a spring 57 serving to press the gage in the opening, as will be understood.

My invention is extremely simple in construction and is admirably adapted to change the gage to quickly shift the location of or guide the fabric to receive parallel rows of stitches, and while it is primarily designed for use in connection with collars it is equally well adapted for other classes of articles where it is essential to alter the line of stitching.

What I claim as new is—

1. In combination, a sewing-machine having a needle and a presser-foot, formed with a recess and a needle-receiving opening, said foot being perforated in the recess, a gage, and means to move the gage laterally of the presser-foot and into and out of said perforation in the recess.

2. In combination, a sewing-machine having a presser-foot formed with a recessed portion, said presser-foot being perforated in said recessed portion, a gage movable into and out of said perforation, a sliding plate supporting the gage, and means for locking said plate at predetermined points of travel.

3. In combination, a sewing-machine having a presser-foot formed with a recess, said presser-foot being perforated in said recess, a gage having a guiding-point to rest in said perforation, and mechanism to lift said point clear of the perforation and move the gage to a new position.

4. In combination, a sewing-machine having a presser-foot formed with a recess, said presser-foot being perforated in said recess, a gage having a guiding-point to rest in said perforation, mechanism to lift said point from the perforation and move the gage laterally of the presser-foot, and means for locking the gage in predetermined position.

5. In combination, a sewing-machine having a presser-foot formed with a recess, said presser-foot being perforated in said recess, a

gage having a guiding-point to rest in said perforation, a sliding plate pivotally supporting the gage, and means to swing the gage on its pivot and move the sliding plate to adjust the gage.

6. In combination, a sewing-machine having a presser-foot formed with a recess, said presser-foot being perforated in said recess, a gage having a guiding-point to rest in said perforation, a sliding plate pivotally supporting the gage, a cam for moving said guiding-plate, and means for locking the sliding plate at predetermined points of travel.

7. In combination, a sewing-machine having a presser-foot formed with a recess, said presser-foot being perforated in said recess, a gage having a guiding-point to rest in said perforation, a sliding plate pivotally supporting the gage, a cam for lifting the guiding-point of the gage and moving the sliding plate, and automatic locking means for said sliding plate.

8. In a sewing-machine, the combination with a work-plate, a feeding device, a presser-foot formed with a recess in its upper surface and a gage-receiving perforation extending from the recess through the foot, and a fabric-edge gage adapted to be passed down through said perforation to the top surface of the work-plate, and means to move the gage from said perforation to serve as a guide beyond the presser-foot.

9. In a sewing-machine, the combination with a work-plate, a feeding device, a reciprocating needle, and a presser-foot provided with a needle-hole and with a perforation adjacent said needle-hole, of a gage arranged to be passed through said perforation to the said top surface of the work-plate to operate as a fabric-edge gage near the said needle, and means to move the gage from said perforation to a point on the surface of the said work-plate which is farther off from said needle-hole and in alinement with the said needle and said perforation, as and for the purposes set forth.

10. In a sewing-machine, the combination with a work-plate, a reciprocating needle, a presser-foot provided with a needle-hole and with a gage-receiving perforation, a movable gage within said perforation serving as a guide, mechanism to transfer said gage to a point farther from the needle out of said perforation and on the surface of said work-plate to adjust said gage to determine the distance at which another portion of the same piece of fabric is to receive its line of stitching, as and for the purposes set forth.

11. In a sewing-machine, the combination with a work-plate, a reciprocating needle, a presser-bar, and a gage movable from one point on said work-plate to any one of several other points thereon, the presser-foot being formed with a series of gage-receiving perforations arranged in alinement, and mechanism

to transfer said gage from any one of said perforations to any one of the others in said series, and the reverse, as and for the purposes set forth.

12. In a sewing-machine, the combination with a work-plate, a feeding mechanism, a reciprocating needle and a fabric-edge gage adjustable on said work-plate, of an arm having its forward end connected with said gage, a tilting plate having its forward end connected with said arm, a reacting spring holding said tilting plate in normal position, a sliding plate on which said tilting plate is pivoted, and mechanism to raise and to lower the forward end of said tilting plate and move said sliding plate both rearward and forward, as and for the purpose set forth.

13. In a sewing-machine, the combination with a work-plate, a feeding mechanism, a reciprocating needle, a presser-foot formed with a needle-hole and with one or more gage-receiving recesses, of a gage movable through either of said openings and seated on said work-plate, an arm carrying said gage, a tilting plate carrying said arm, a sliding plate carrying said tilting plate, a reacting spring, and a cam mounted on a shaft and operating said tilting plate and said sliding plate, as and for the purposes set forth.

14. A guiding device for a sewing-machine comprising a gage-arm, a gage carried by the arm, mechanism for first elevating the gage-arm and gage and moving it in a horizontal direction while elevated, and upon reversal of the movement of said mechanism the gage-arm and gage are lowered, and means for locking the gage when lowered.

15. A guiding device for a sewing-machine comprising a gage-arm and a gage, means for adjusting the gage in line with its horizontal movement, mechanism for elevating the gage moving it in a horizontal direction, and then lowering it to change its position, and means locking the gage after its position has been changed.

16. A guiding device for a sewing-machine comprising a gage-arm, a gage adjustably mounted on the arm, means for elevating the gage and moving it in a horizontal direction while elevated and then lowering it, and adjustable stops for limiting the movement of the gage.

17. A guide for a sewing-machine comprising a gage-arm, a gage carried thereby, a cam having limiting stopping-walls and a flange provided with a notch, a stationary pin in the path of the stopping-walls, a lug cooperating with the notch in the flange to permit of the lowering of the gage, and means for locking the gage when lowered.

18. A guiding device for a sewing-machine comprising a gage, mechanism for elevating the gage, moving it in a horizontal direction and lowering it, stops to limit the movement of the gage, a pin, and two openings spaced

to correspond to the limit of movement of the gage, the pin engaging one of the openings when the gage is lowered.

19. A guiding device for a sewing-machine 5 comprising a gage, mechanism for elevating the gage, moving it in a horizontal direction and lowering it, adjustable stops to limit the movement of the gage, each stop being formed with an opening, a pin, said pin engaging one 10 of the openings when the gage is lowered.

20. A guiding device for a sewing-machine comprising a gage-arm, a gage adjustably carried thereby, mechanism for elevating, moving 15 in a horizontal direction and lowering the gage, adjustable stops, an opening formed in each stop, and a pin on the gage-arm, said pin engaging an opening in one of the stops when lowered.

21. A guiding device for a sewing-machine 20 comprising a gage, mechanism for elevating, moving in a horizontal direction when elevated and held in elevated position when a stop is encountered, and stops to limit the movement of the gage, said gage being lowered 25 by reversing the movement of the gage-operating mechanism.

22. A guiding device for a sewing-machine, comprising a gage, elevating mechanism having a notch which coöperates with the gage, 30 said mechanism moving the gage in a horizontal direction while elevated, and the notch permitting of the lowering of the gage after it has been horizontally moved a predetermined distance in either direction.

23. A guiding device for a sewing-machine 35 comprising a gage-arm, a gage carried by the arm, and means coöperating with the gage-arm for elevating the gage, moving it in a horizontal direction while elevated and lowering it. 40

24. In combination, a sewing-machine having a needle and a presser-foot formed with a needle-receiving opening and a gage-opening, a gage, and means to move the gage laterally 45 of the presser-foot and into and out of said gage-receiving opening.

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

HENRY BRYCE.

Witnesses:

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ARTHUR C. VANDERZIE.