

No. 688,477.

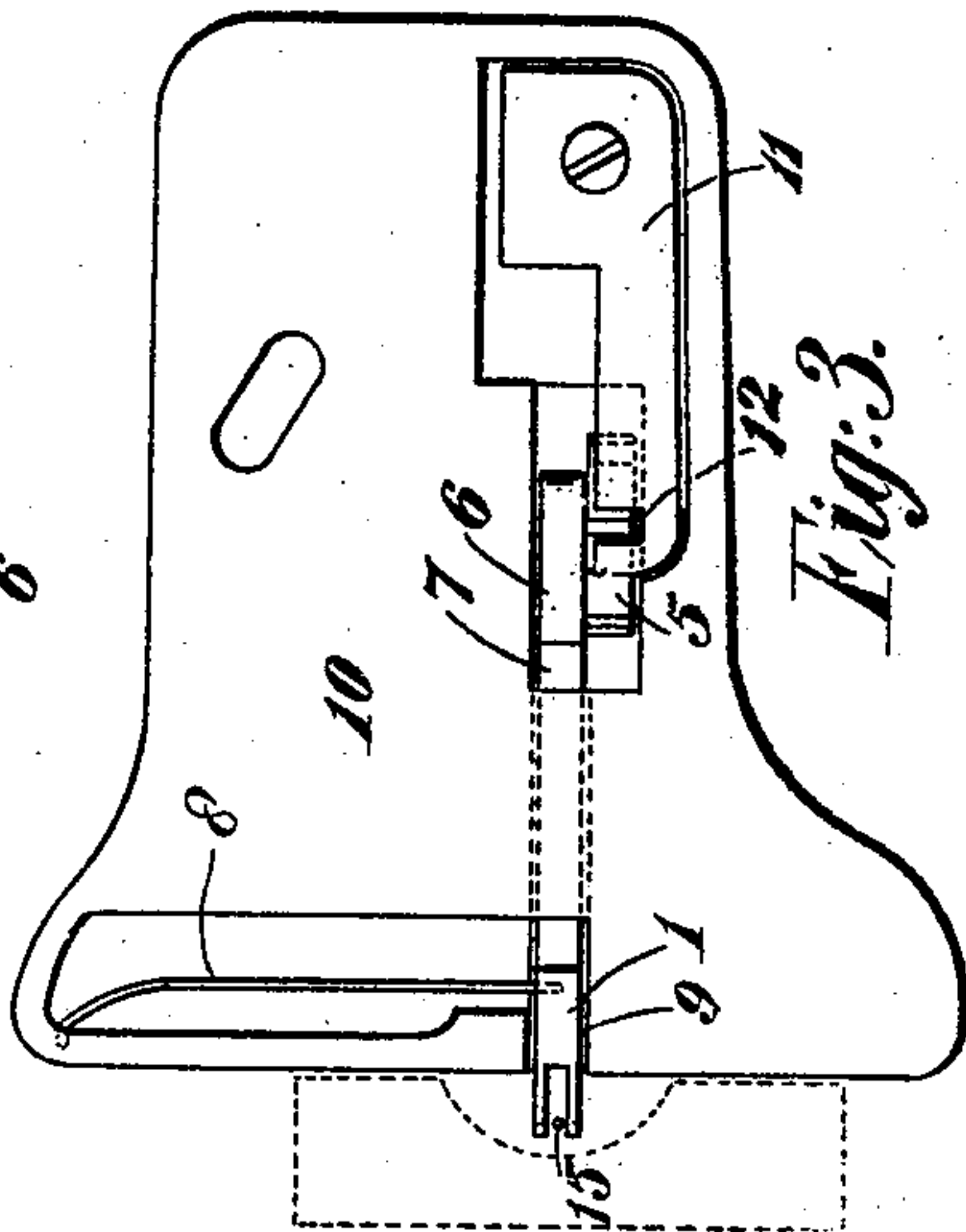
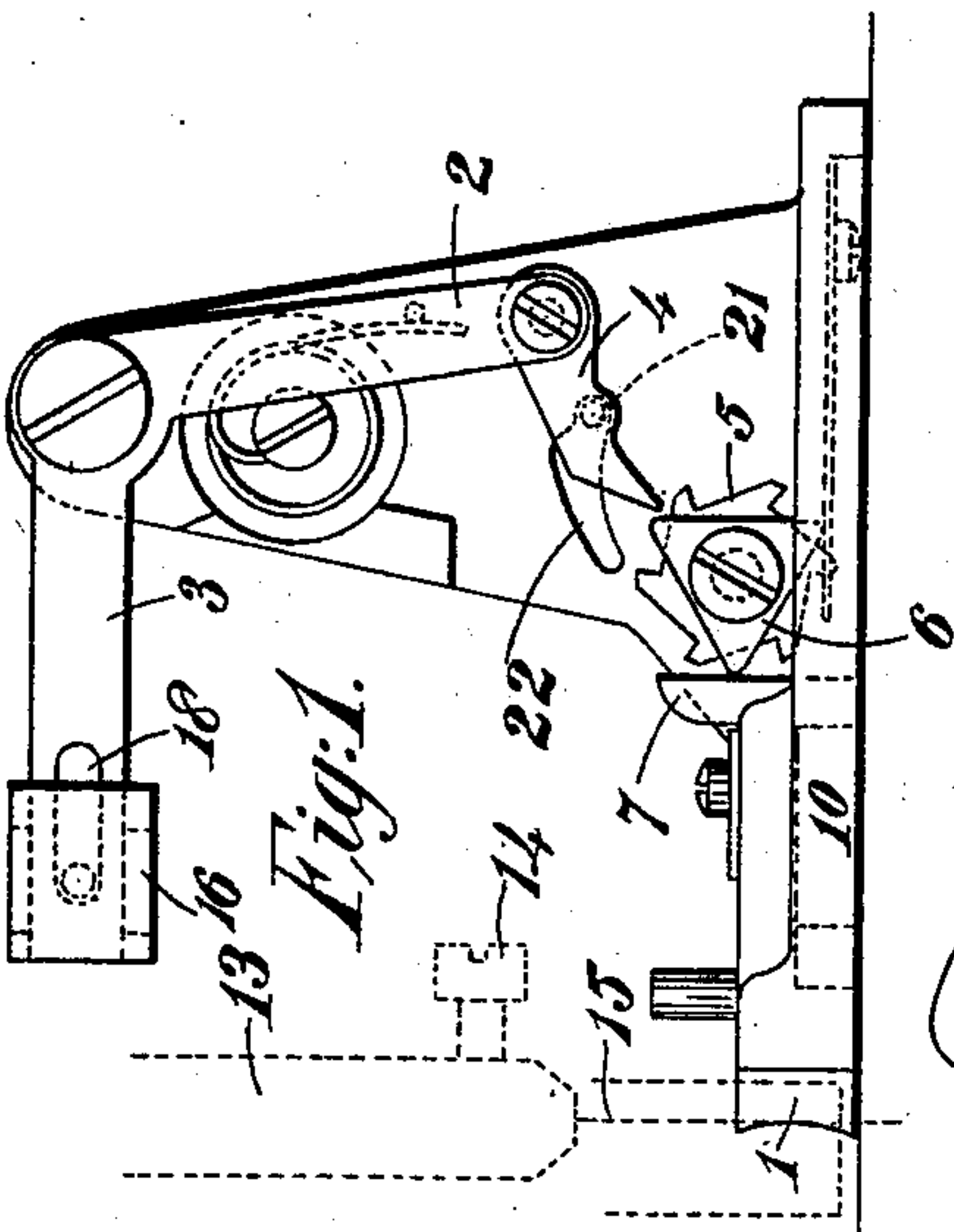
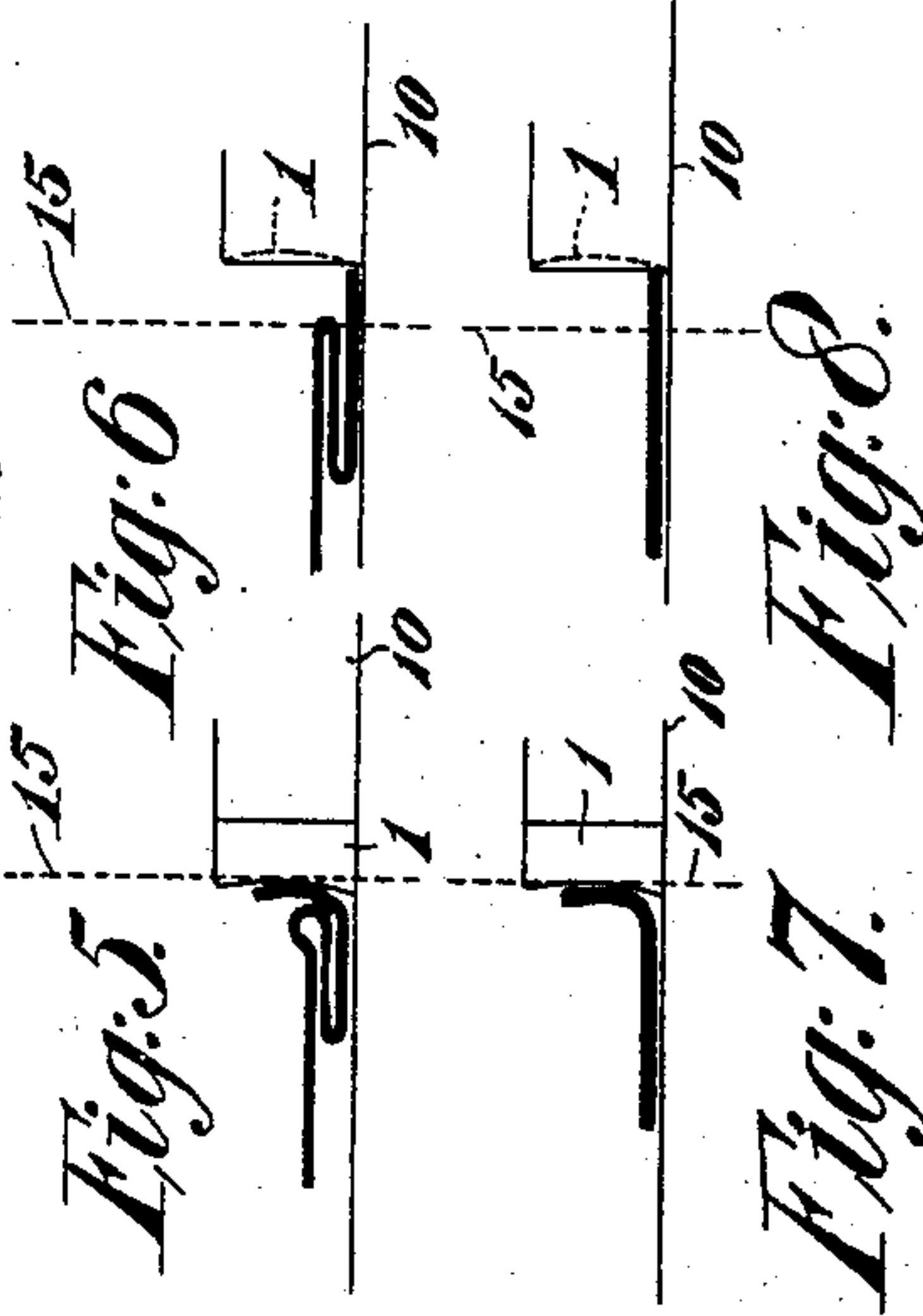
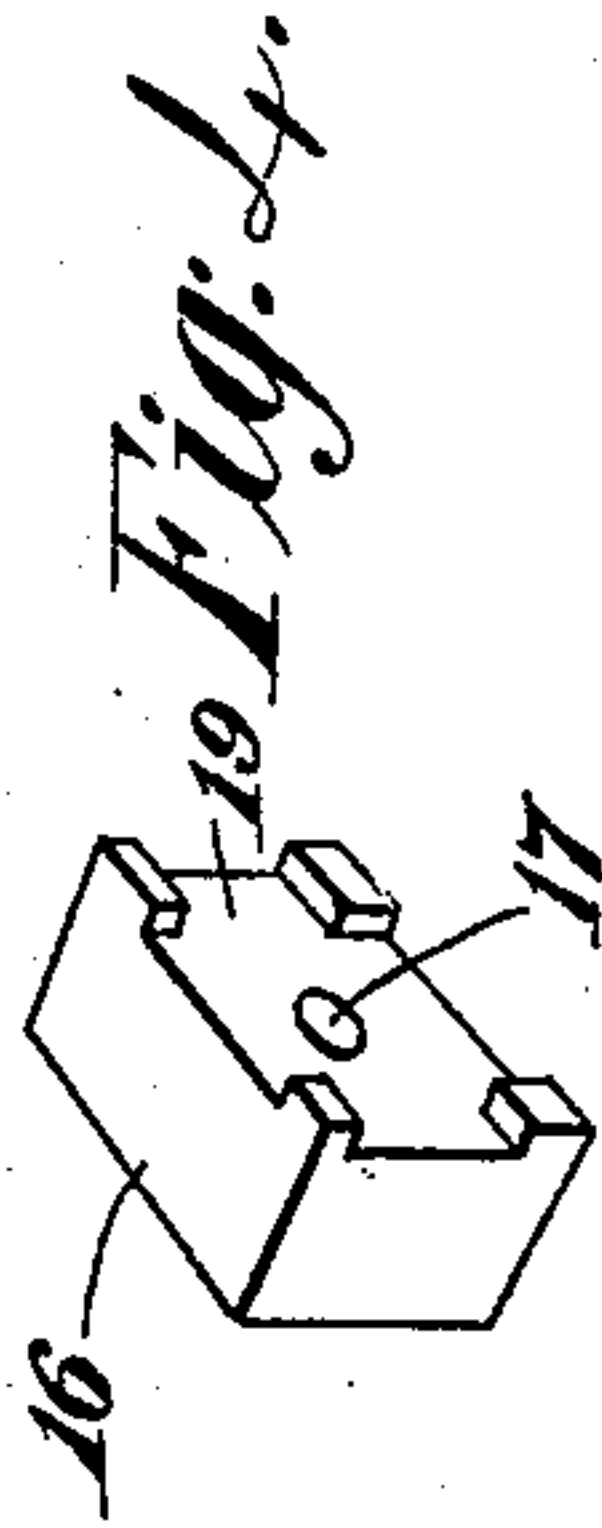
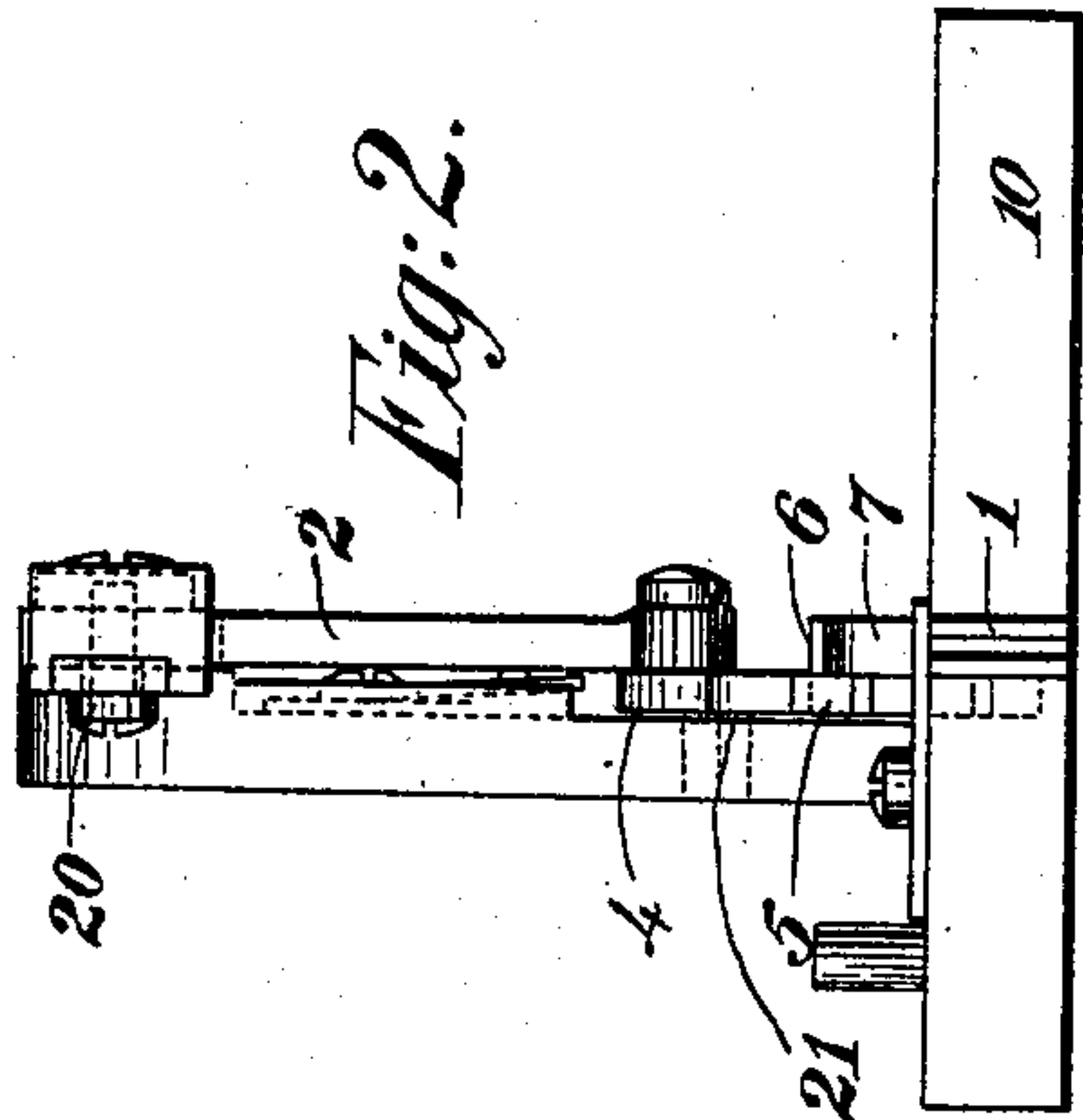
Patented Dec. 10, 1901.

J. C. MOORE.

OVERSEAMING ATTACHMENT FOR SEWING MACHINES.

(Application filed Aug. 5, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

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OVERSEAMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 688,477, dated December 10, 1901.

Application filed August 5, 1901. Serial No. 70,876. (No model.)

To all whom it may concern:

Be it known that I, JEHU C. MOORE, a citizen of the United States, residing at 394 East Eighteenth street, Brooklyn, New York, have
5 invented a new and useful Improved Attachment for Sewing-Machines, of which the following is a specification.

This invention relates to attachments for sewing-machines by means of which over-
10 seaming and blind stitching may be effected, and has for its object the improvement of the attachment described and illustrated in the complete specification of British Letters Patent No. 24,596 of 1897.

15 The essence of my invention consists in providing means whereby the face of the fabric may be lifted or turned up out of the path of the needle when it is desired to make an over-edge stitch. The force required to lift or turn
20 back the face of the fabric is considerably less than that required to push the fabric back, as a heavy fabric in this latter case is liable to become jammed or crowded against the presser-foot.

25 A further feature of my invention consists in the combination of parts for transmitting motion from the needle-bar to the means for moving the face of the fabric out of the path of the needle.

30 In this specification the word "overseaming" is to be understood to refer to the operation of stitching over the raw edge of a fabric, this operation being sometimes described elsewhere by other terms, such as "overcast-
35 ing," "serging," or "overedge sewing."

I will now proceed to describe my invention with reference to the accompanying drawings, in which—

40 Figure 1 is a side elevation of my improved attachment. Fig. 2 is an end elevation of the same. Fig. 3 is a plan view of the under surface of the base of my attachment and of the parts arranged thereon. Fig. 4 is a perspective view of the striker-block hereinafter
45 described. Fig. 5 is a diagram showing the relative position of the pusher and fabric during the formation of an overedge stitch in the operation of blind stitching. Fig. 6 is a diagram showing the position of the pusher
50 and fabric during the formation of a blind stitch. Fig. 7 is a diagram showing the relative position of the pusher and fabric dur-

ing the formation of an overedge stitch in the operation of overseaming. Fig. 8 is a diagram showing the position of the pusher and
55 fabric during the formation of stitches alternate to the overedge stitches in the operation of overseaming.

The essential difference between the pusher
1 (or member for moving the face of the fab-
60 ric out of the path of the needle) of this invention and that described in the above-mentioned specification for pushing back the face of the fabric consists in the pusher of this in-
65 vention being so shaped at its end that the face of the fabric is raised or lifted up and turned backward by the pusher when the pusher is driven against it. Thus on refer-
70 ring to Figs. 1 and 5 to 8 it will be observed that the edge of the pusher adjacent to the fabric is concave, that portion of the pusher against which the edge of the fabric makes
75 contact at the beginning of the outward stroke of the pusher forming an acute angle with the plane surface of the bed-plate of the sewing-machine, said portion of the edge of
the pusher sloping away from the free edge of the fabric.

The action of my improved pusher is shown
80 clearly in Figs. 5, 6, 7, and 8, from which it will be observed that the inclined lower portion of the edge of the pusher serves to lift up and move or curve back the free face of the fabric.

I wish it to be clearly understood that I do
85 not limit myself to the exact shape of the edge of the pusher as shown in the drawings, but that the essence of a pusher constructed according to my invention consists in its being adapted when operated to lift and curve back
90 the face of the fabric out of the path of the needle.

The means which I employ to operate the pusher are as follows:

At the lower end of the spring-pressed arm
2 of the lever 3, operating the pusher 1, I pro-
95 vide a pawl 4, which directly operates upon a ratchet-wheel 5, mounted on a horizontal pivot, and provided on one face with a triangular or other suitably shaped cam 6, which
directly engages with the end 7 of the pusher
100 1. The pawl 4 is provided with a pin 21, guided in the slot 22. A spring 8, Fig. 3, is provided to return the pusher to its normal position in its recess 9 in the base-plate 10 of

the attachment, when the cam 6 allows it to return. In order to prevent the premature return of the pusher 1, due to the resilience of the cloth, the tension of the thread, or any other cause, I provide a spring-detent 11, preferably situated on the under surface of the base-plate 10, as shown in Fig. 3, said spring-detent being adapted to bear against the ratchet-wheel 5, so that it is impossible for the same to rotate backward on account of the teeth of the ratchet-wheel successively engaging in the recess 12, provided near the free extremity of the spring.

The lever 3, which operates the pusher 1, is actuated by the needle-bar 13, (indicated in dotted lines in Fig. 1,) the screw 14 for securing the needle 15 to the needle-bar serving as a convenient means for striking a block 16, adjustably secured on the horizontal arm of the lever 3. Instead of the screw 14 any other means projecting from the needle-bar may be employed for striking the block 16.

In order to increase the adaptability of the attachment for use with as great a range of sewing-machines as possible, I may employ a block of the form shown in Fig. 4. This block 16 is provided with a hole 17 for attachment purposes, the center of the hole being at a different perpendicular distance from each one of the four sides of the block. The block is attached to the horizontal arm of the lever 3 by means of a set-screw 20, which passes through a slot 18 in the lever-arm and enters the eccentric hole 17 of the block. One end face 19 of the block is provided with two channels at right angles to one another, in breadth equal to the breadth of the horizontal arm of the lever, said channels running at right angles to one another from one side of the block to the other and their center lines passing through the center of the eccentric hole 17. By this means the block may be readily and securely attached to the horizontal arm of the lever in any one of four positions, in each position of which the lower

striking-surface of the block is at a different height from the bed-plate of the sewing-machine, so that the block can be adjusted to enable the needle-bars of different machines to operate the attachment satisfactorily.

What I claim is—

1. In a sewing-machine attachment, the combination with a base-plate and a presser-foot, of a reciprocating pusher guided to move toward and from the said presser-foot, said pusher being provided with a concave acting face or end which is adapted, when the pusher is operated, to lift up and curve back the face of the fabric being sewed out of the path of the needle for the formation of an overedge stitch, said pusher also having a recess or slot through which the needle can pass, and means for operating the pusher from the needle-bar, substantially as and for the purposes described.

2. In a sewing-machine attachment, the combination with a base-plate adapted to be attached to the presser-foot and provided with a recess opening toward the presser-foot, of a longitudinally-reciprocating pusher guided to move toward and from the presser-foot, said pusher being provided with a concave end which is adapted, when the pusher is operated, to lift up and curve back the face of the fabric being sewed out of the path of the needle for the formation of an overedge stitch, said pusher also having a recess or slot through which the needle can pass, and means for operating the pusher from the needle-bar, said means consisting of the lever 2, 3, pawl 4, ratchet-wheel 5, detent 11, cam 6 and spring 8, substantially as described.

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

JEHU C. MOORE.

Witnesses:

CLEMENT LEAN,
GEORGE I. BRIDGES.