

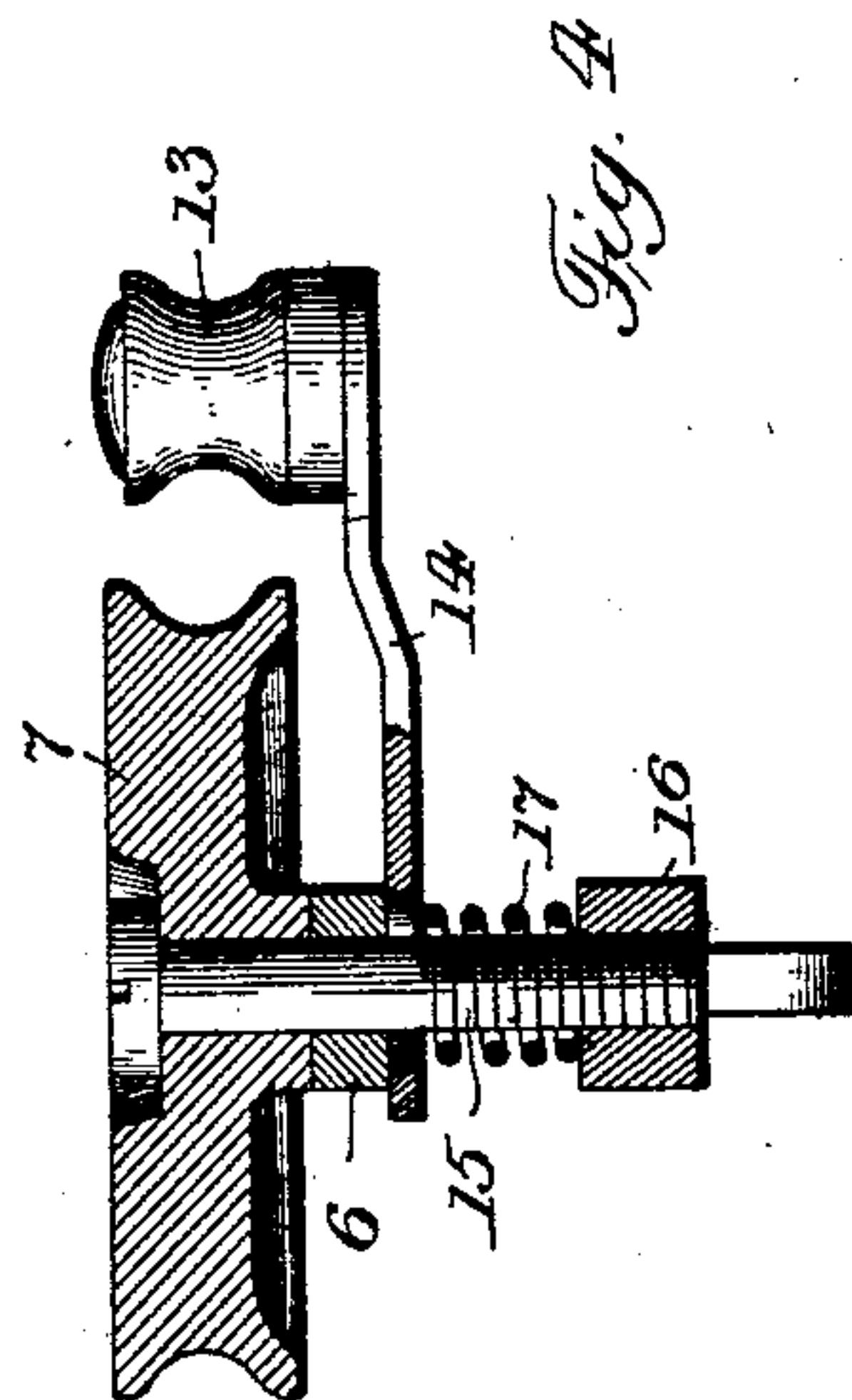
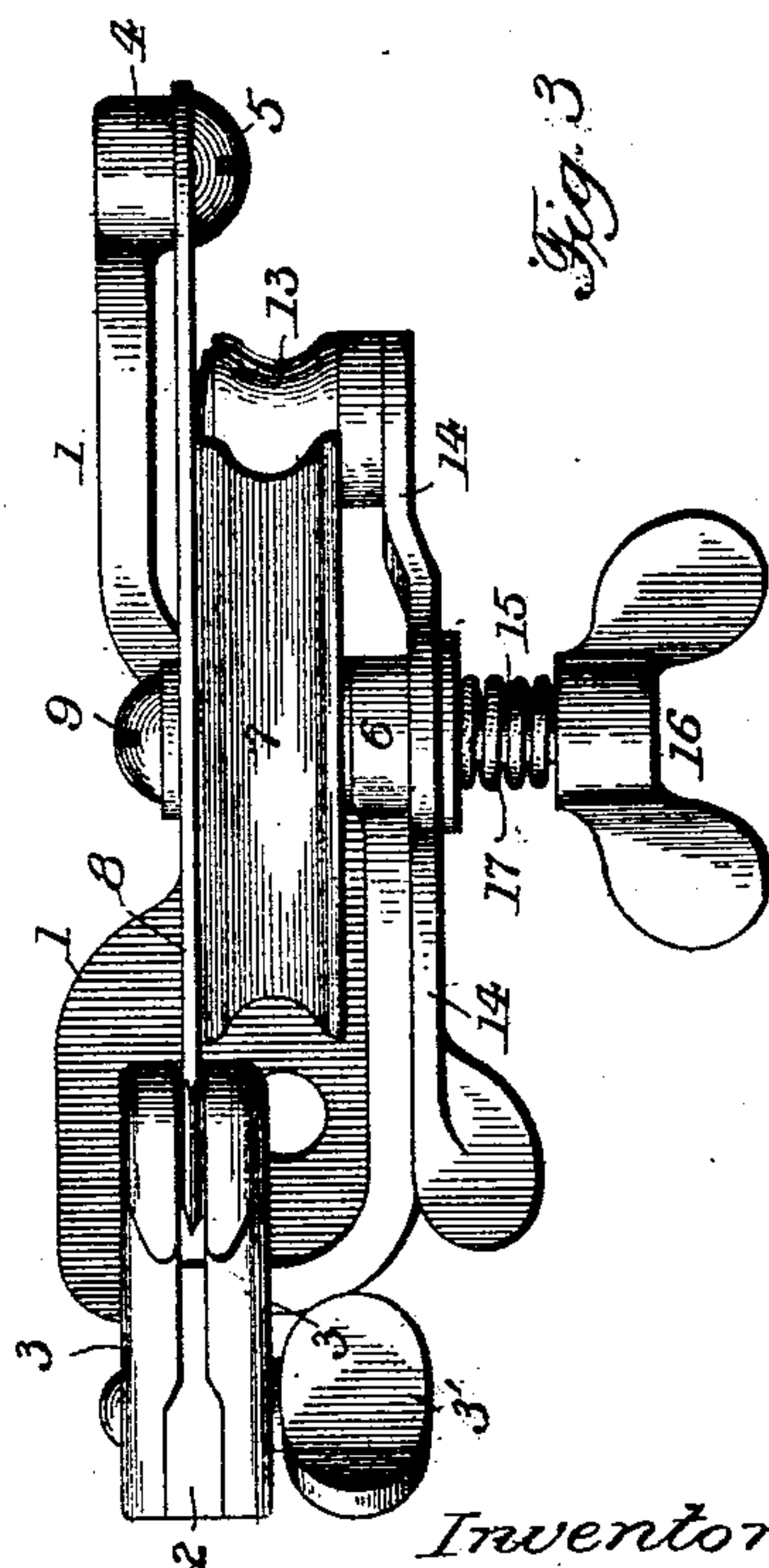
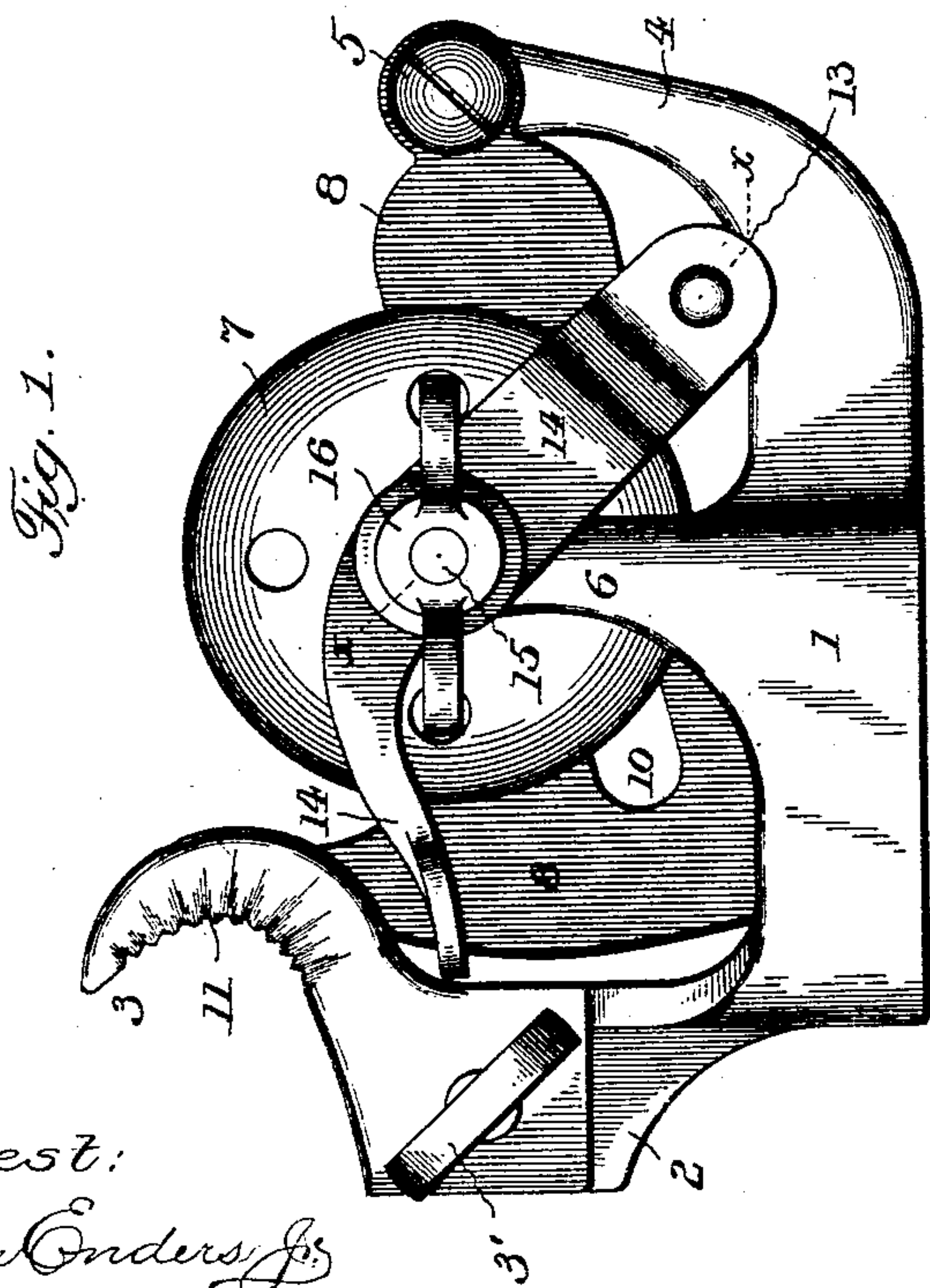
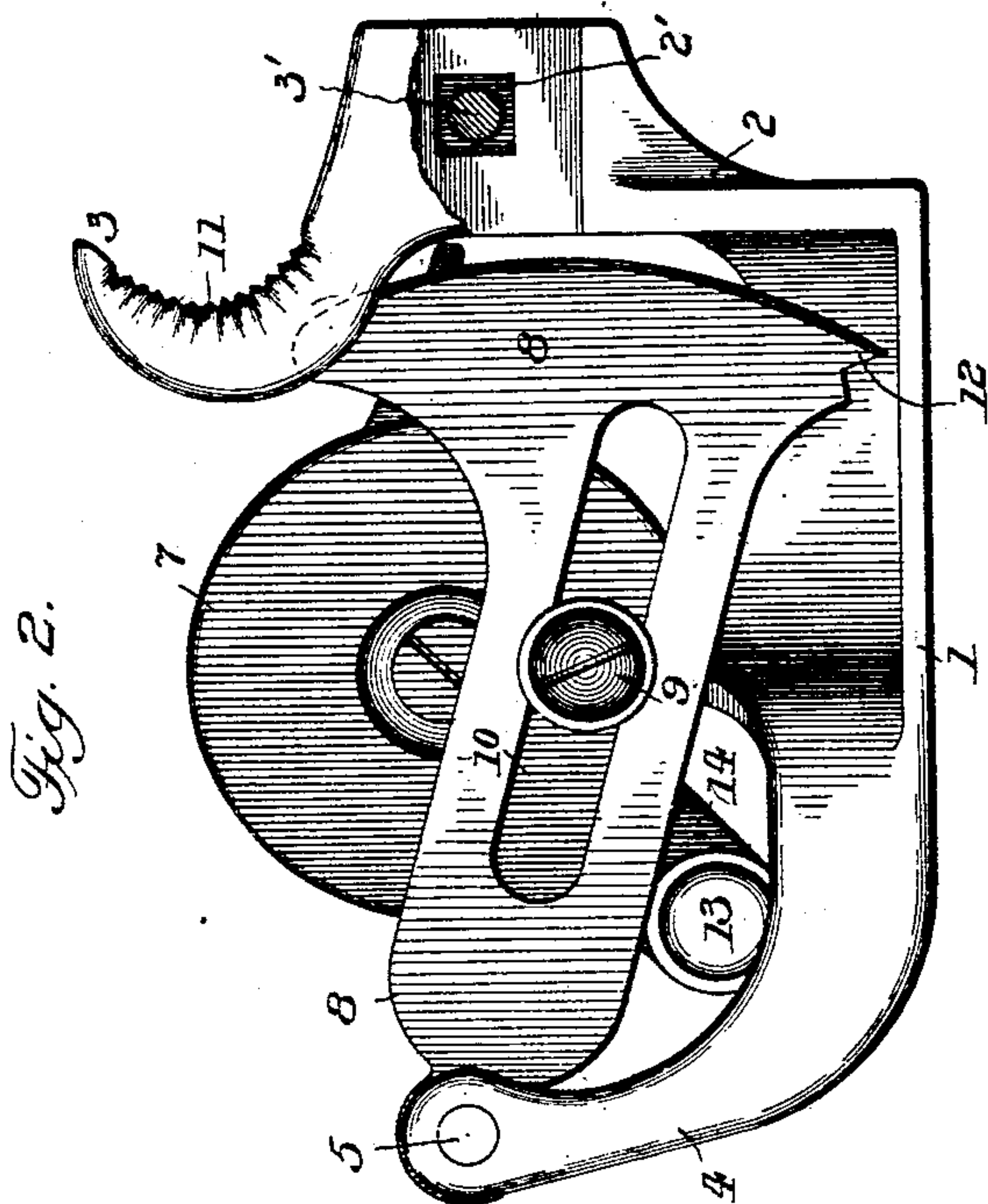
No. 684,306.

Patented Oct. 8, 1901.

E. C. PHILLIPS.
RIPPING ATTACHMENT FOR SEWING MACHINES.

(Application filed Jan. 10, 1901.)

(No Model.)



Attest:
John Enders, Jr.
Henry A. Kott

Inventor:
Elwood C. Phillips,
by Robert Burns Attorney.

UNITED STATES PATENT OFFICE.

ELWOOD C. PHILLIPS, OF CHICAGO, ILLINOIS, ASSIGNOR TO DUDLEY C. DENISON, OF SAME PLACE.

RIPPING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 684,306, dated October 8, 1901.

Application filed January 10, 1901. Serial No. 42,789. (No model.)

To all whom it may concern:

Be it known that I, ELWOOD C. PHILLIPS, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ripping Attachments for Sewing-Machines, of which the following is a specification.

The present invention relates to that class of attachments for sewing-machines in which a reciprocating or vibrating cutter, moving between stationary guard-jaws, is adapted to sever the stitches in the operation of ripping sewed seams.

The object of the present improvement is to provide a simple, durable, and effective mechanism for ripping seams, which is not only rapid and efficient in operation, but is very convenient of manipulation and use, all as will hereinafter more fully appear and be more particularly pointed out in the claims. I attain such objects by the construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is an elevation illustrating the mechanism as seen from one side of the attachment; Fig. 2, a similar view as seen from the opposite side of the attachment; Fig. 3, a plan view; Fig. 4, a detail section illustrating the connection of the tightener-arm to the frame of the attachment.

Similar numerals of reference indicate like parts in the different views.

Referring to the drawings, 1 is the base-plate of the main supporting-frame of the present attachment and affording a means of attachment to the sewing-machine table-top in proper operative relation with the driving-belt of the sewing-machine.

2 is an integrally-formed vertical extension of such base-plate, at opposite sides of which are secured the pair of curved or hook-shaped guards 3 3 by means of a single clamping-screw 3', with an intervening gap between them for the reception of the vibrating cutter, as hereinafter more fully set forth, and which guards are longitudinally adjustable on the extension 2, so as to gage the amount of projection of the cutting edge of the vibrating cutter out past the forward edges of such guards, such adjustment being permitted of

an elongation of the hole 2' in the upper end of vertical extension 2, through which the clamping-bolt 3' passes. 4 is a similar integrally-formed vertical extension of the bed-plate, the upper end of which receives the screw or bolt 5, by which the vibrating cutter is pivoted to the main supporting-frame of the attachment.

6 is an integrally-formed intermediate vertical extension of the base-plate, the upper end of which is provided with a suitable arbor, on which turns the driving-pulley 7 of the vibrating cutter, and with a universal connection, as hereinafter described, for the carrying-arm of the tightener-pulley of the present invention.

8 is the vibrating cutter, pivoted at one end by the pivot screw or bolt 5 in the vertical extension 3 of the main frame and having its forward end formed by a segmental portion, which is sharpened to a knife-edge, as shown, and which segmental portion is adapted to vibrate between the guard-jaws 3 3 in the operation of ripping a sewed seam.

Operative connection between the vibrating cutter 8 and its driving-pulley 7 is made by a crank pin or stud 9 on said pulley engaging in an elongated slot 10 in the intermediate portion of the cutter, as shown.

In the present invention the guard or jaws 3 will have their forward faces, against which the cloth is pressed in the operation of ripping a seam, formed with corrugations 11, so as to hold the cloth against movement during such operation, and in such connection a material part of the present improvement consists in forming the lower end of the segmental forward part of the vibrating cutter with a hook-shaped projection 12, which is adapted in connection with said jaws to act in a very efficient manner as a "stitch-picker" in one form of seam-ripping.

13 is a tightener-pulley carried by an adjustable arm 14 and adapted to engage the driving-belt of the sewing-machine and by its adjustment either increase or diminish the degree of frictional contact between the driving-pulley 7 of the vibrating cutter and the main driving-belt of the sewing-machine from which it receives its motion.

In my preferred construction the adjust-

able carrying-arm 14 of tightener-pulley is secured in place by an enlarged opening in its attaching-eye fitting the attaching-stud 15, and is secured yieldingly in place by means
 5 of a thumb-nut 16 screwing onto the stud 15, with an interposed spiral spring 17 to afford the desired resiliency to the attachment, and thus enable the tightener roller or pulley 13
 10 being very readily engaged with or disengaged from the driving-belt by the operator in placing the present attachment in operative position and in the subsequent removal thereof.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a ripping attachment for sewing-machines, the combination with the main frame having vertical extensions for the attachment
 20 of the guard-jaws, the driving-pulley and the vibratory cutter, of guard-jaws secured at opposite sides of one of the vertical extensions by a single clamping-screw, a vibrating cutter pivoted to another of said vertical
 25 extensions and a driving-pulley journaled on another of said vertical extensions and provided with a crank-pin having operative engagement with the vibratory cutter, substantially as set forth.

30 2. In a ripping attachment for sewing-machines, the combination with the main frame having vertical extensions for the attachment of the guard-jaws, the driving-pulley and the vibratory cutter, of guard-jaws secured in a longitudinally-adjustable manner,
 35 at opposite sides of one of the vertical extensions by a single clamping-screw passing through an elongated slot in said extension, a vibratory cutter pivoted to another of said

vertical extensions, and a driving-pulley 40 journaled on another of said vertical extensions and provided with a crank-pin having operative engagement with the vibratory cutter, substantially as set forth.

3. In a ripping attachment for sewing-machines, the combination with the main frame 45 having a series of vertical extensions, of guard-jaws secured to one of said vertical extensions, a vibratory cutter pivoted to another of said vertical extensions, a driving-pulley 50 journaled to another of said vertical extensions and provided with a crank-pin having operative engagement with the vibratory cutter, and a tightener-pulley having a carrying-arm yieldingly secured to the main frame 55 by an enlarged opening in its attaching-eye fitting a fixed attaching-stud, a clamping-nut and an interposed spring, substantially as set forth.

4. In a ripping attachment for sewing-machines, the combination with the main frame 60 having a series of vertical extensions, of guard-jaws the forward faces of which are formed with corrugations and secured to one of said vertical extensions, a vibratory cutter 65 pivoted to another of said vertical extensions, and a driving-pulley journaled to another of said vertical extensions and provided with a crank-pin having operative engagement with the vibratory cutter, substantially 70 as set forth.

Signed at Chicago, Illinois, this 5th day of January, 1901.

ELWOOD C. PHILLIPS.

Witnesses:

ROBERT BURNS,
 HENRY A. NOTT.