

No. 677,492.

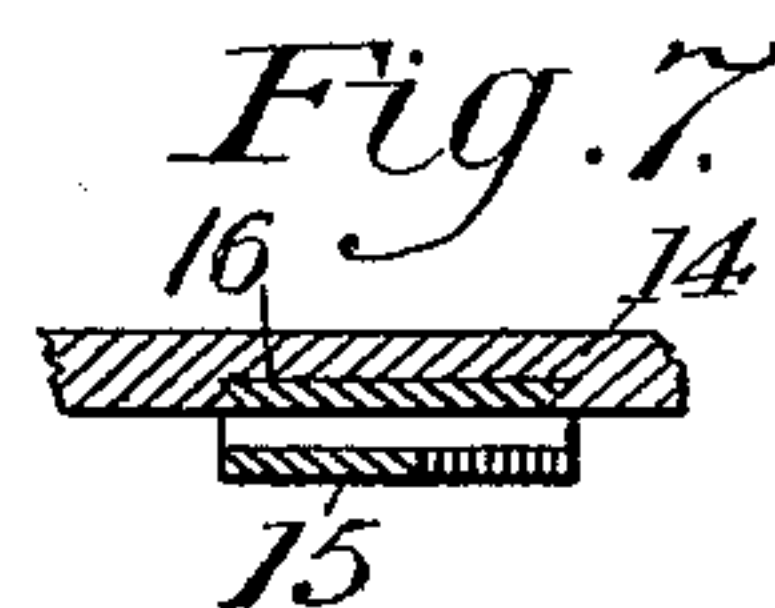
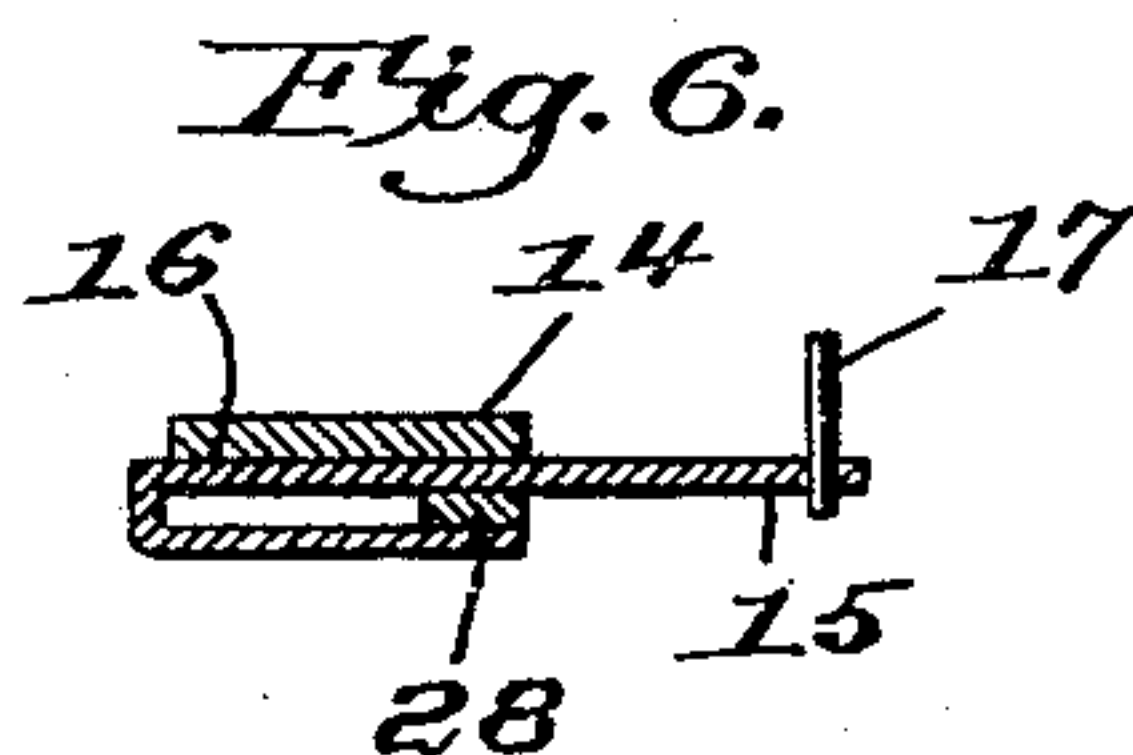
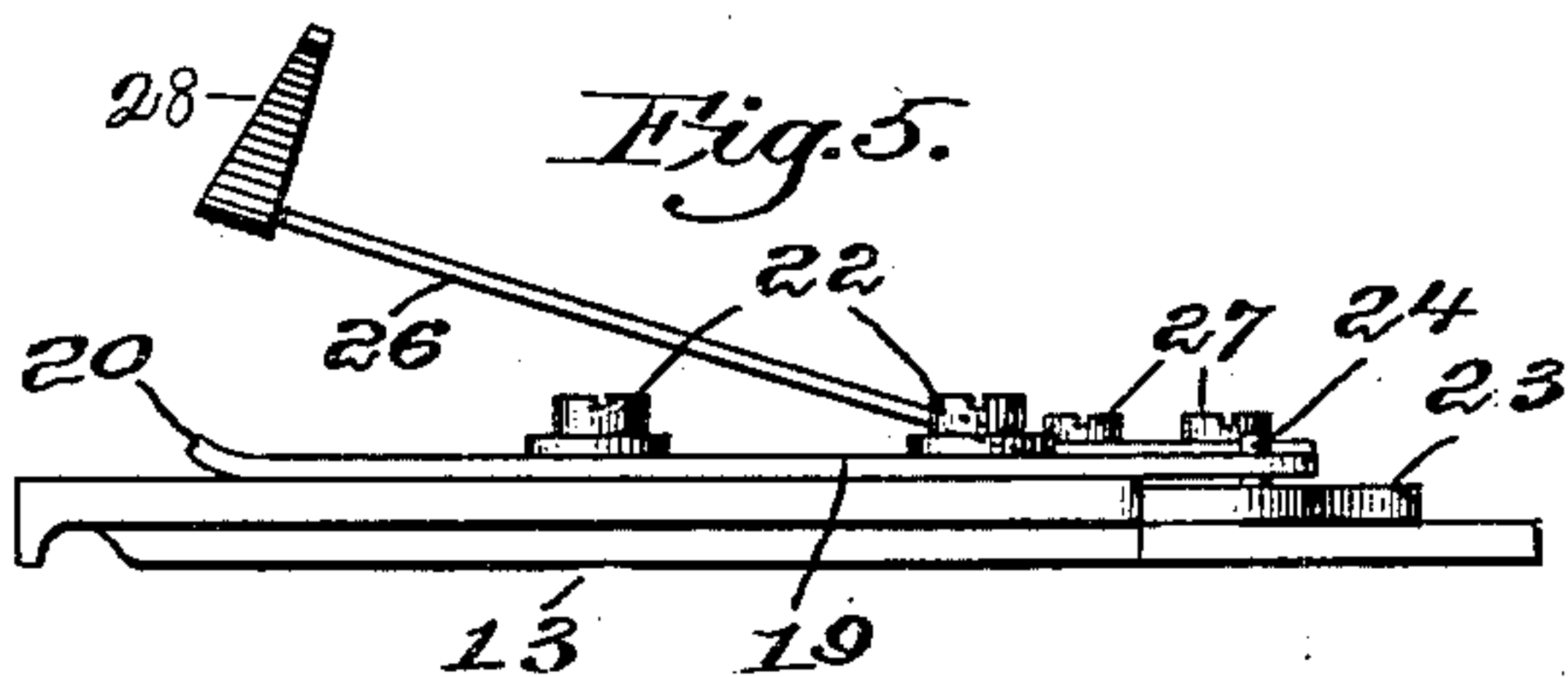
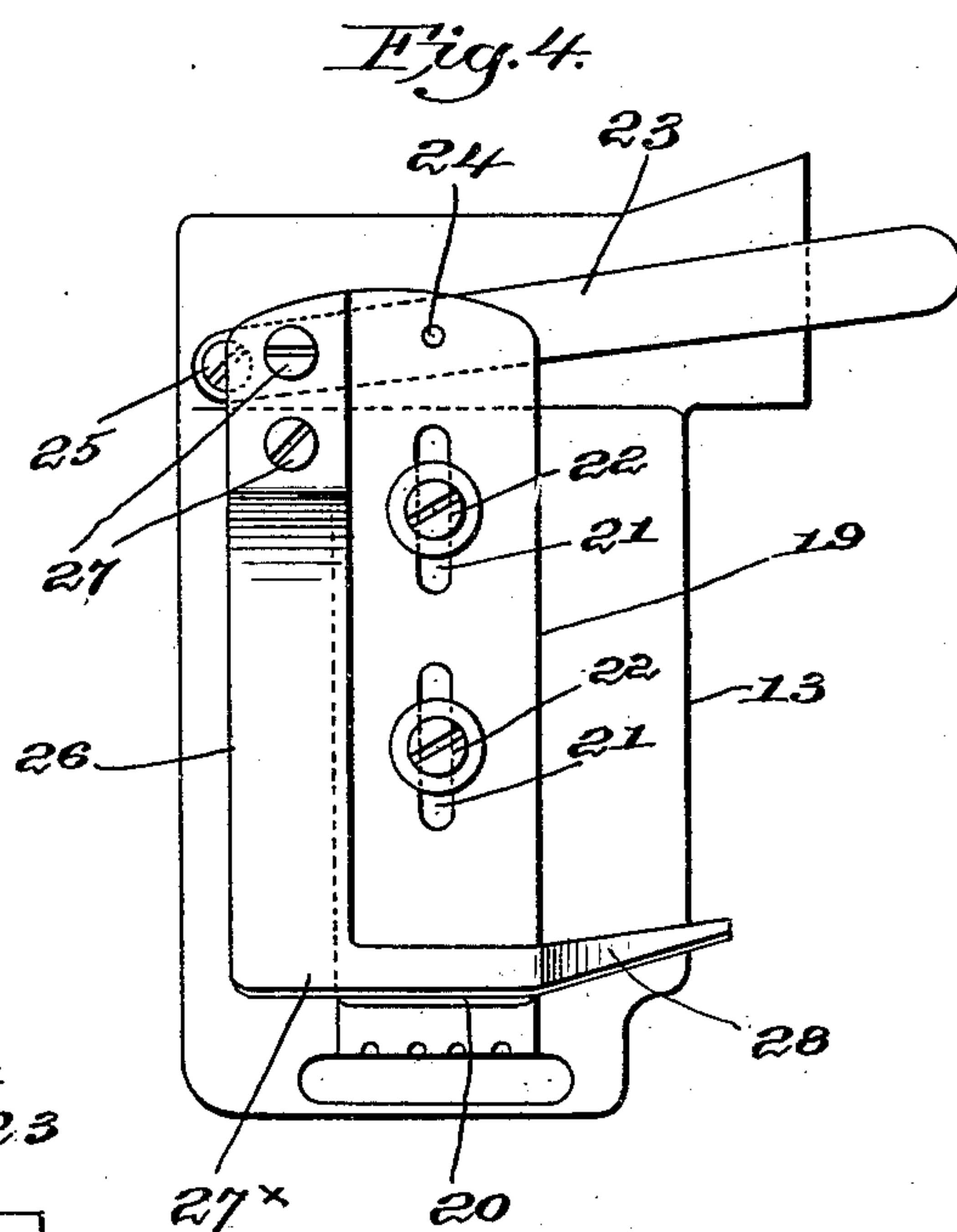
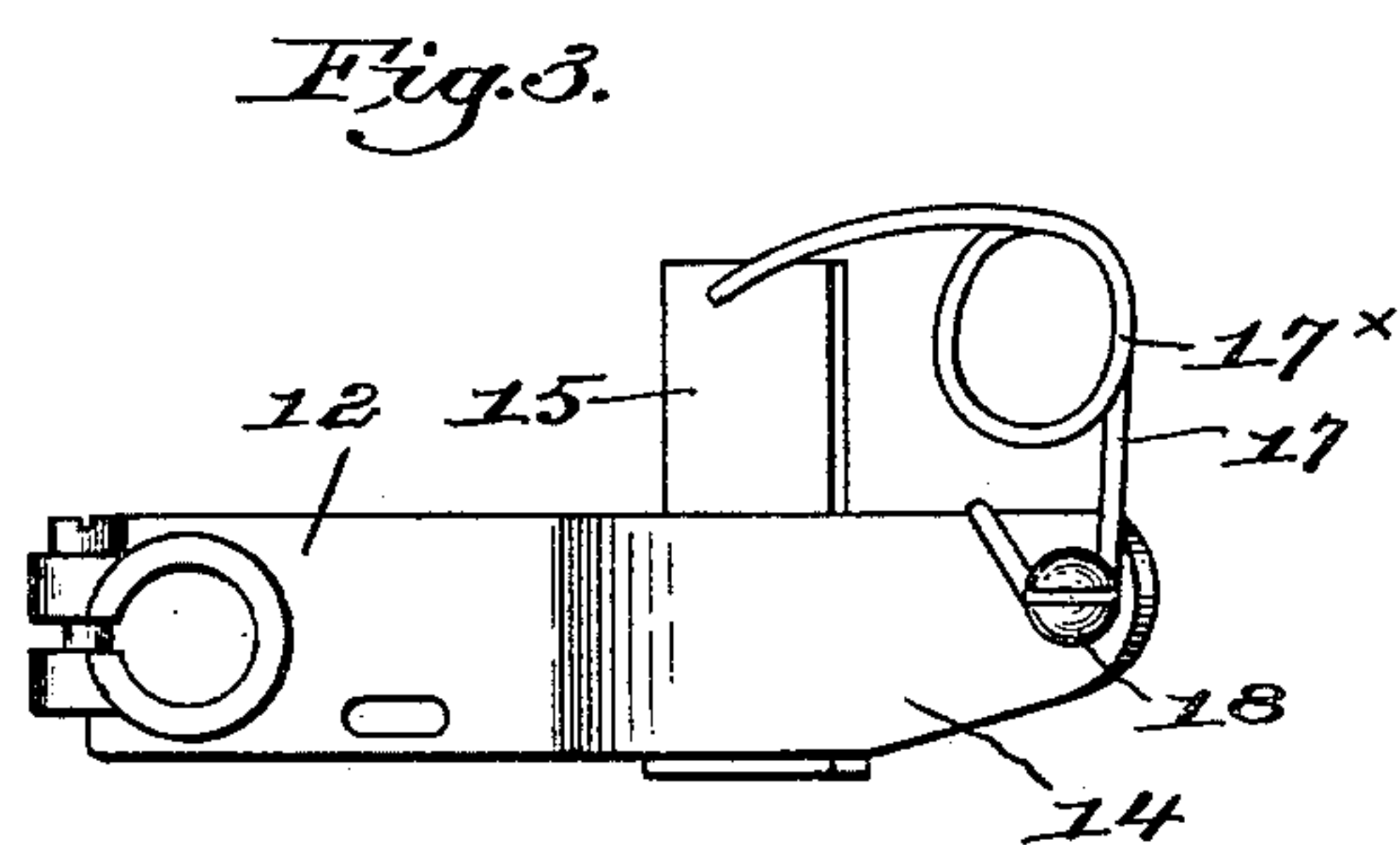
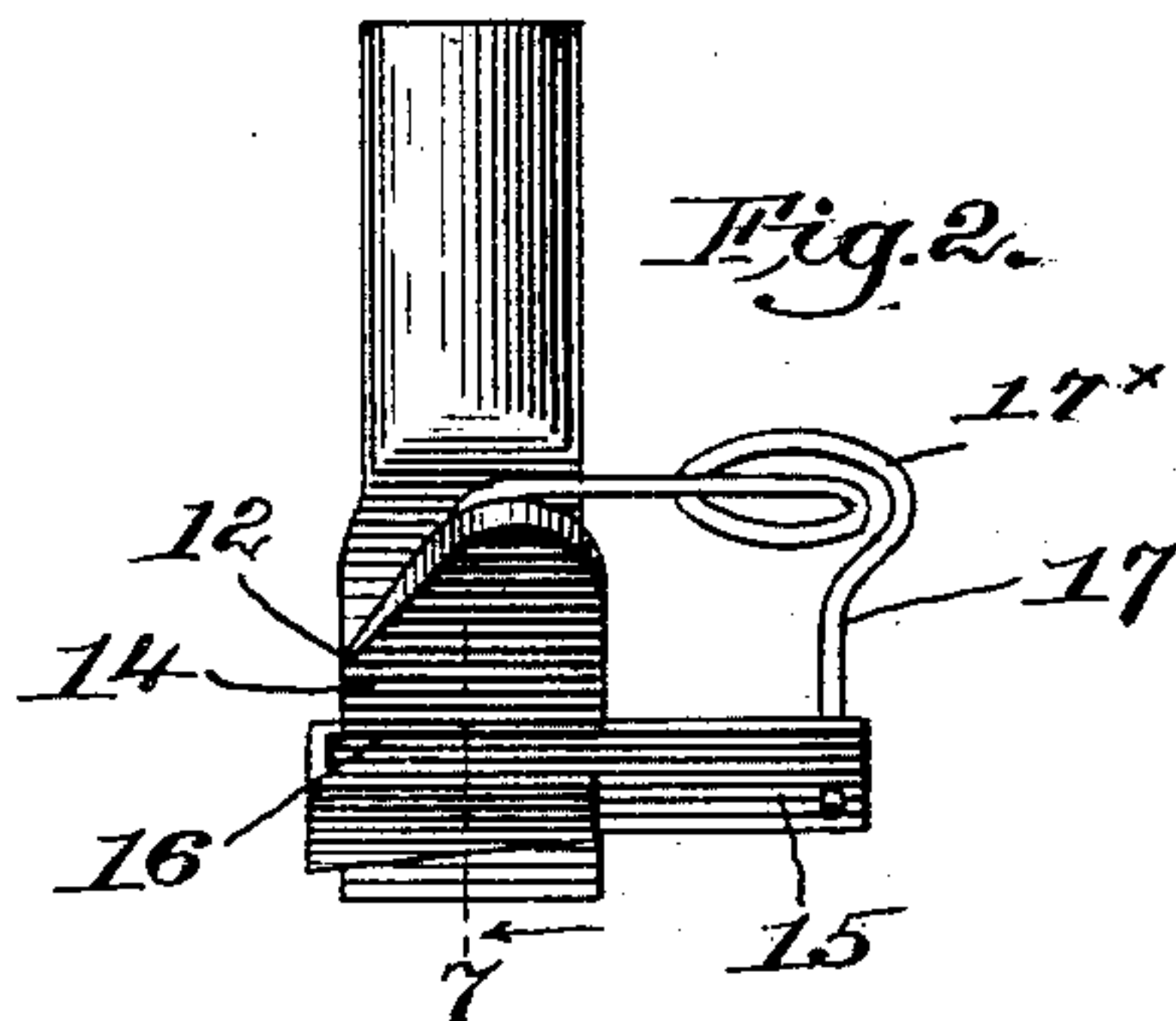
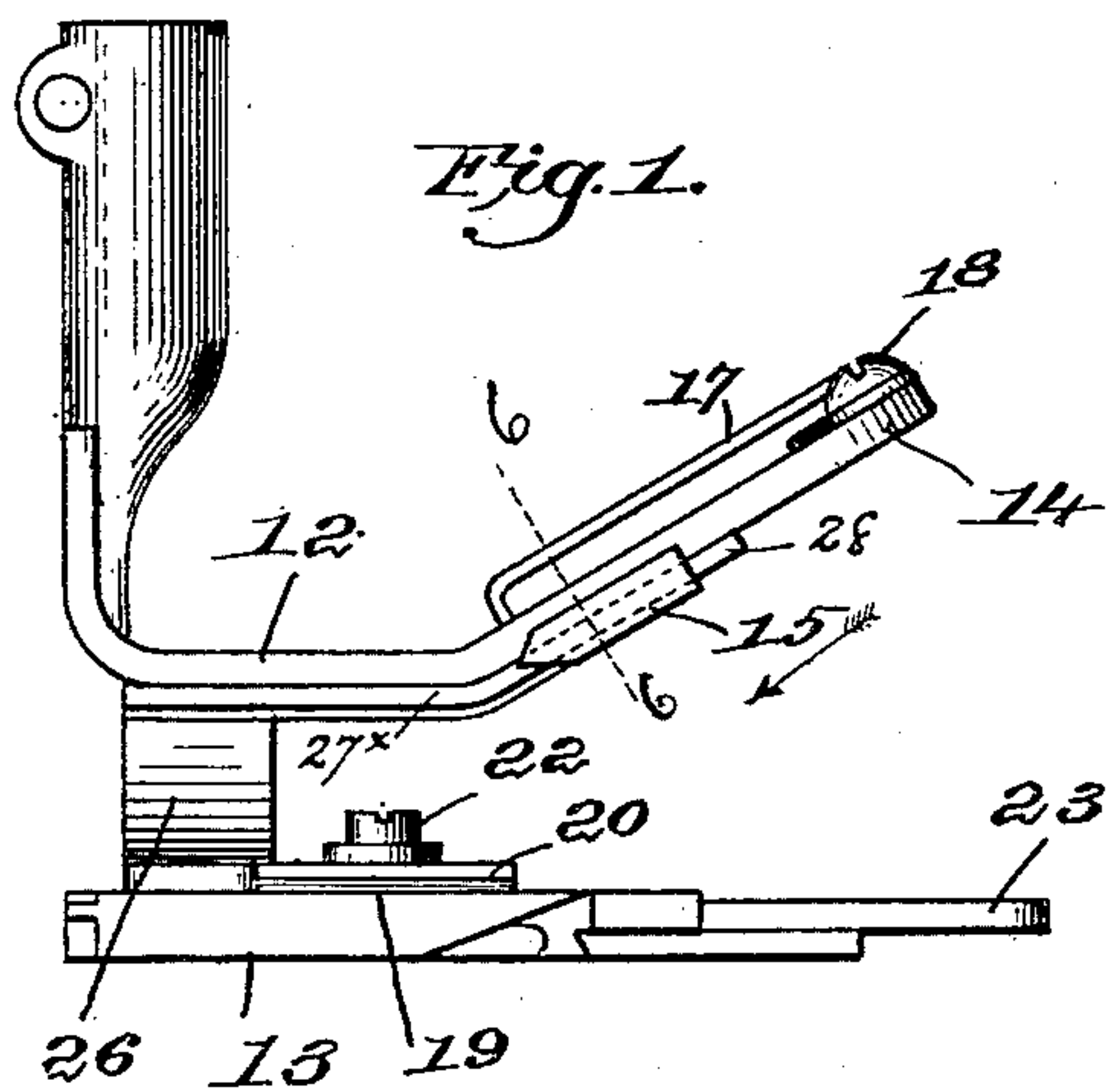
Patented July 2, 1901.

C. H. ALLEN.

WELT GUIDE FOR SEWING MACHINES.

(Application filed Sept. 10, 1900.)

(No Model.)



Witnesses.

Thomas Drummond,  
Edward H. Allen.

Inventor.  
Charles H. Allen,  
by Crosby Gregory, atty.



# UNITED STATES PATENT OFFICE.

CHARLES H. ALLEN, OF MARLBORO, MASSACHUSETTS.

## WELT-GUIDE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 677,492, dated July 2, 1901.

Application filed September 10, 1900. Serial No. 29,530. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. ALLEN, of Marlboro, county of Middlesex, State of Massachusetts, have invented an Improvement in Welt-Guide Attachments for Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like numerals on the drawings representing like parts.

This invention relates to sewing-machines; and the object of the invention is to provide an improved mechanism for insuring the proper relation between the line of stitching and the edge of the work, even where one of the parts of the latter varies in width, and said mechanism is especially adapted for use in applying the welt to a shoe-sole.

The invention is shown in one simple embodiment in the accompanying drawings, wherein—

Figure 1 is a side elevation of the presser-foot and throat-plate of a sewing-machine of ordinary kind having my improved attachment combined therewith. Fig. 2 is a front view of the presser-foot and one portion of the welt-guide supported thereby. Fig. 3 is a plan view of the same. Fig. 4 is a similar view of the throat-plate. Fig. 5 is a side elevation of the same as seen from the right in Fig. 4. Fig. 6 is a transverse section in the line 6 6, Fig. 1, looking toward the left, the parts in the rear being omitted for the sake of clearness; and Fig. 7 is a partial section on the line 7, Fig. 2.

The improved machine is adapted to all kinds of work, but is particularly advantageous in shoework, in which connection it is adapted to guide the welt in such manner that the latter may be stitched to the sole and the line of stitching be maintained parallel to the outer edge of the sole notwithstanding variations in width of said welt; and said improved machine involves in its organization a welt-guide having two members, one of which is yieldable relatively to the other, said yieldable member being adapted to recede upon any increase in width of the welt passing between the members of the guide. One of the members in the present instance is spring-controlled, and for compactness it is supported by the presser-foot of the machine.

In Fig. 1 I have shown in working relation

the presser-foot and throat-plate of a sewing-machine of known construction, said parts being denoted, respectively, by 12 and 13. The presser-foot 12 has an angular upward extension, as 14, which supports the yieldable member of the welt-guide, as hereinafter described, and being so disposed the welt-guide will receive the welt without interfering with the work or with the operator's vision.

I have indicated by the arrow in Fig. 1 the direction of movement of the welt, the latter being usually in the form of a strip received from a suitable source of supply. (Not illustrated.)

As previously stated, the improved machine includes a welt-guide comprising two members, one of which is yieldable relatively to the other, and said yieldable member is supported in the present case by the angular upward extension 14 of the presser-foot 12, and while said yieldable member may be of any suitable kind it is represented as consisting of a hook-shaped device 15, the shank or body of which is set and retained in any suitable way in a groove, as 16, extending entirely across the under side of the angular extension. From this it will be understood that the guide member 15 can have a sliding movement transversely of the presser-foot.

The under side of the body of the hook-shaped member 15, which is the yieldable member of the welt-guide, is flush with the under side of the extension 14, by reason of which the free motion of the said member cannot be interfered with by that portion of the relatively fixed member of the guide which is disposed within the hook of the former.

In Fig. 2 the slidable member of the welt-guide is shown as occupying its normal position, where it is held by a suitable spring, as 17, of angular shape, having a coil 17<sup>x</sup> at its elbow. One branch of the spring is bent around the shank of the screw 18, tapped into the extreme forward end of the upperside of the presser-foot, while the other branch passes through an aperture in the slidable member 15 of the welt-guide. The throat-plate 13 supports upon its upper side a plate, as 19, the outer end 20 being straight and constituting a guide or gage, against which the outer edge of the sole is placed while the



welt is being stitched thereto. The plate 19 has longitudinal slots 21 lengthwise thereof, which receive screws, as 22, in threaded engagement with the throat-plate 13. By moving the plate 19 back and forth the stitches may be made nearer the edge of the sole at the shank than they are along the remainder of the sole, as is the custom. To operate said plate 19, I have illustrated a lever 23, pivoted at 24 to the inner under side of said plate and fulcrumed, as at 25, to the throat-plate 13. The relatively fixed member of the welt-guide is sustained by the adjustable plate 19, as it is necessary that said fixed guide member should change in position as the plate 19 is adjusted in order that the stitching may follow the correct line at the shank of the sole. The relatively fixed member of the welt-guide is denoted by 26, the body thereof being suitably secured, as by screws 27, to the adjustable sole-guide plate 19. Said member 26 consists, preferably, of a flat spring having a long body or shank provided at its free end with a transverse head 27<sup>x</sup>, constituting the working part thereof and which fits within the hooked portion of the part 15, as shown in Fig. 6, the outer edge of said head 27<sup>x</sup> being straight and parallel to the end 20 of the sole-guide plate 19. The relatively fixed jaw of the welt-guide is therefore yieldingly connected with the throat-plate, so that the presser-foot can be freely raised and lowered as occasion requires without affecting the relationship between the parts.

The welt is fed through the hooked portion of the member 15 and between the closed outer end of the hook and the straight inner edge of the working portion 27<sup>x</sup> of the guide member 26, and when there is any increase in width in the welt such widened portion will strike against said outer closed end of the hook and will force the member 15 to what is illustrated as the left, so as not to throw the welt out of true line.

The free end of the working part 27<sup>x</sup> of the member 26 is deflected outward, as at 28, in order to guide the welt between the straight edges of the two parts of the guide.

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

1. A work-guide for sewing-machines comprising two members, one of which is hook-shaped to receive the working portion of the other, means for attaching one of said members to the throat-plate, and means for slidably supporting the other of said members on the presser-foot.

2. A work-guide for sewing-machines comprising a fixed member and a hook-shaped member, the hook thereof embracing the

working portion of the fixed member, means for slidably supporting the shank of the hook-shaped member on the presser-foot, and means to support the fixed member on the throat-plate.

3. A work-guide for sewing-machines consisting of two members one of which is hook-shaped to receive the working portion of the other one, in combination with a presser-foot to slidably support one of said members, and a spring connected respectively with the presser-foot and the member which it supports.

4. The combination with a throat-plate, of an adjustably-mounted sole-guide supported by the throat-plate, a welt-guide consisting of two members one of which is yieldingly mounted, and the other of which is connected with said adjustably-mounted sole-guide.

5. The combination with a throat-plate, and with a presser-foot, of a slide supported by the presser-foot, a spring connected respectively with the slide and the presser-foot, said slide constituting an adjustable member of a welt-guide, a second and relatively fixed member yieldingly connected with the throat-plate to cooperate with said slide.

6. A welt-guide for sewing-machines comprising relatively fixed and movable members, the movable member being hook-shaped, and the fixed member comprising a spring-shank having at its free end a transverse head forming a working portion which is received by the hook of the movable member, means for slidably attaching said movable member to the presser-foot, and means for attaching the fixed member to the throat-plate of a sewing-machine.

7. The combination of a presser-foot of a sewing-machine having an upturned portion, of a work-guide, comprising a hook-shaped member slidably supported on said presser-foot, and a fixed member having a guiding edge which is embraced by said hook-shaped member.

8. A guide mechanism for sewing-machines comprising a sole-guide and means to adjustably secure the same to the throat-plate, a welt-guide comprising two members, means for yieldingly mounting one of said members on the presser-foot, and means for attaching the other to said sole-guide with the working face thereof parallel to the working edge of the said sole-guide.

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

CHARLES H. ALLEN.

Witnesses:

EDWARD R. COLLINS,  
WILLIAM M. HAMILTON.