

J. A. TENNEY.
 BEADING ATTACHMENT FOR HARNESS MACHINES.
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Patented Aug. 1, 1911.

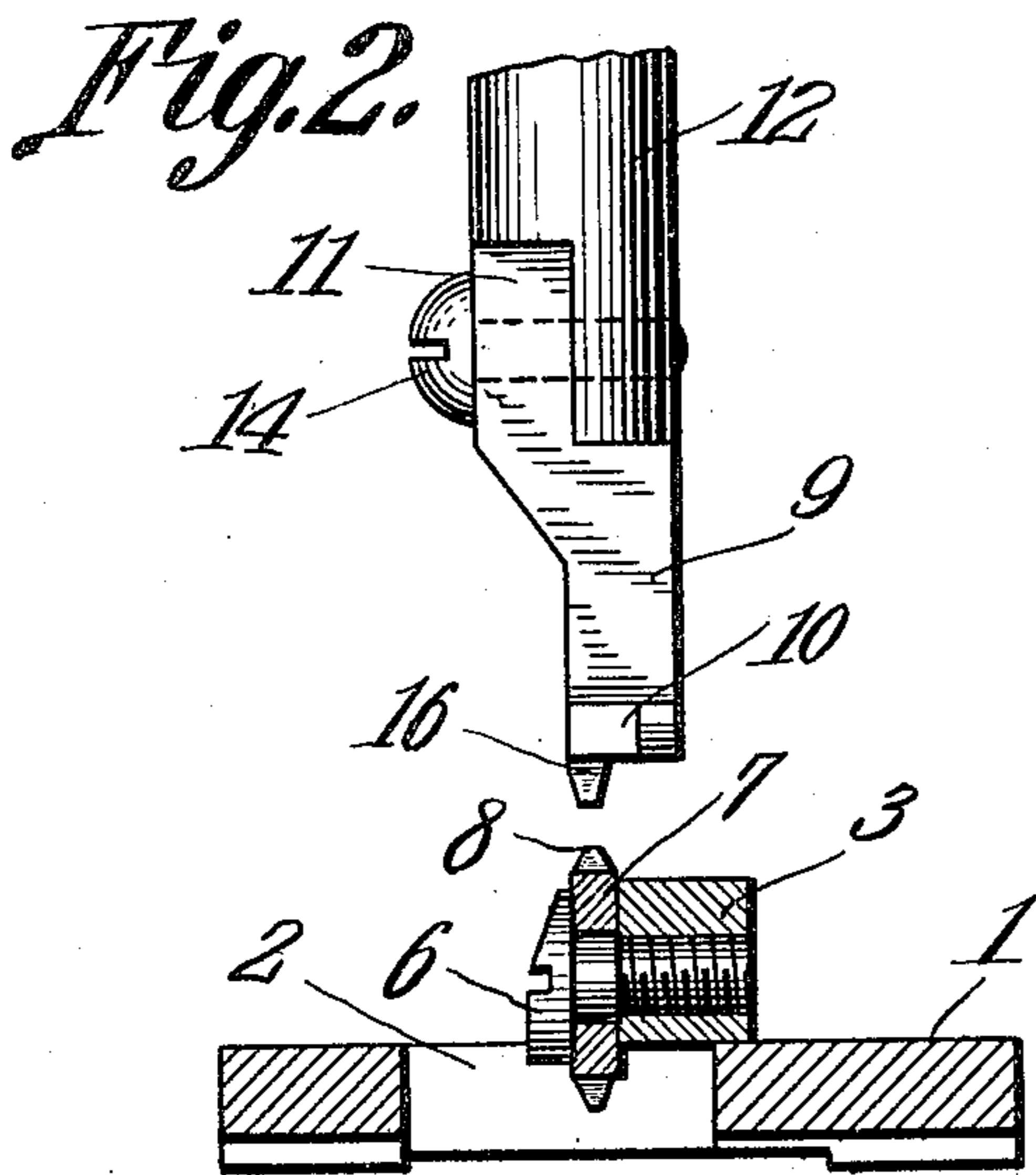
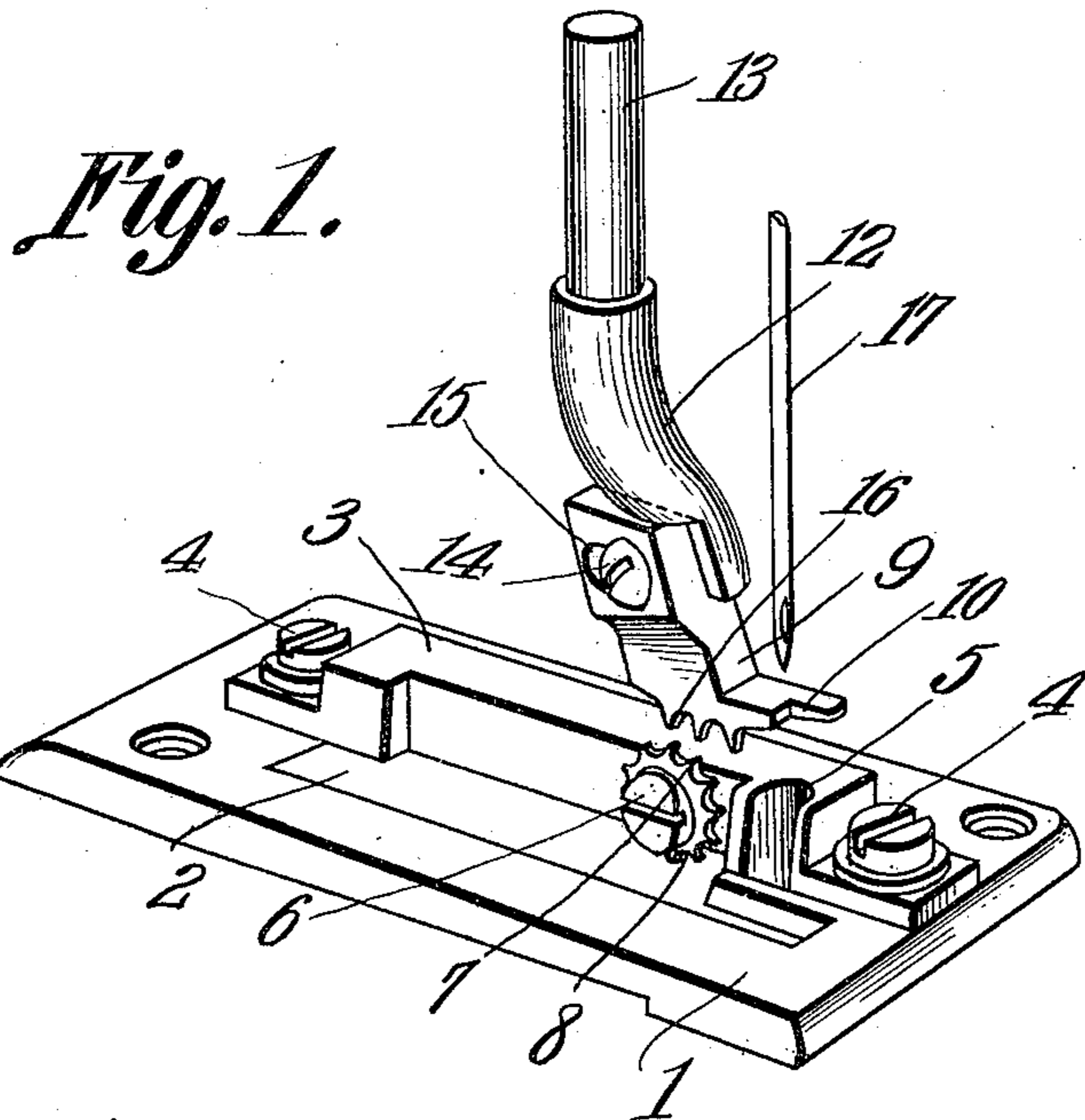
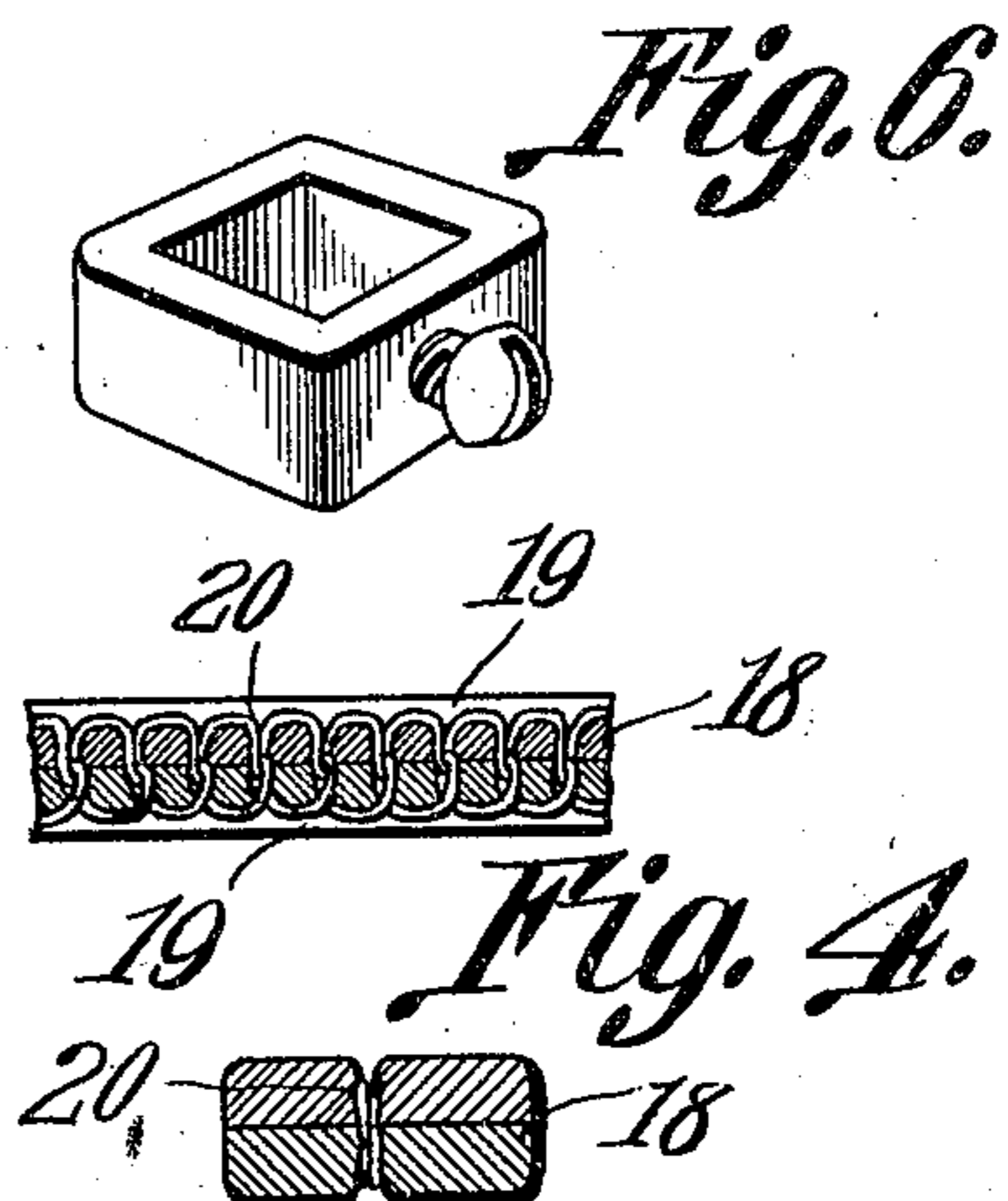


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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BEADING ATTACHMENT FOR HARNESS-MACHINES.

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Specification of Letters Patent.

Patented Aug. 1, 1911.

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To all whom it may concern:

Be it known that I, JAY A. TENNEY, a citizen of the United States, residing at Eureka, in the county of Humboldt and State of California, have invented a new and useful Beading Attachment for Harness-Machines, of which the following is a specification.

This invention relates to beading attachments for harness machines and has for its object the provision of means whereby both the sewing and the beading or setting of the stitch on both the top and the bottom of the material supplied to the machine, takes place at the same time and does not require separate operations as heretofore.

With the foregoing and other objects in view, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a perspective view of the attachment, the needle being shown in position adjacent thereto. Fig. 2 is a front elevation of the lower portion of the presser foot. Fig. 3 is a transverse section through the base element and the setting or beading wheel carried thereby. Fig. 4 is a longitudinal section through the channeled or beaded portion of a strap as it appears after passing through the machine. Fig. 5 is a transverse section through said strap. Fig. 6 is a perspective view of a collar adjusted to be used in connection with the presser foot.

Referring to the figures by characters of reference 1 designates a base plate adapted to be secured to the bed of a leather sewing machine such as used in harness making, this plate being provided with a central elongated opening 2 one side portion of which is bridged by a bar 3 having its ends secured to the plate 1 in any preferred manner, as by means of screws 4. A needle receiving opening 5 is formed in one end portion of the bar and arranged upon one side of the bar and directly back of this opening is a bearing stud 6 preferably in the form of a screw on which is mounted a wheel 7 provided with peripheral notches forming teeth 8 therebetween. These teeth project above the upper surface of the bar 3 and are

spaced apart distances equal to the distances 55 between the perforations formed by the needle of the machine when sewing through a strap or the like. Arranged above the wheel 7 is a presser foot 9 having a forwardly extended recessed portion 10 for the reception of the sewing needle of the machine to which the presser foot is to be connected, the upper end portion of the presser foot being preferably off-set as shown at 11 and secured to an enlargement 12 formed at the lower end of a stem 13. The presser foot may be attached to the enlargements in any preferred manner, as by means of a screw 14, there being preferably an arcuate slot 15 in the presser foot for the reception of the screw so as to permit said presser foot to be adjusted to any desired angle relative to the enlargement 12. The stem 13 is adapted to be attached in the usual manner to the lifter rod of the sewing machine. Teeth 16 are formed upon the lower face of the presser foot 9 and are spaced apart the same distances as are the teeth 8 on the wheel 7. The recess 10 is adapted to register with the opening 5 so as to permit the sewing needle 17 to reciprocate within this recess as well as in the opening 5 while the machine is in operation.

In using the device, the strap or other material to be sewed is placed under the front tooth on the presser foot and the sewing is commenced by placing the needle 17 in motion in the usual manner. The teeth upon the presser foot are the same distance apart as are the teeth on the wheel and, therefore, as the work is fed backward between the wheel and presser foot, these two sets of teeth will press into the stitches both at the top and the bottom of the work and thus set or bead them into the leather and produce an artistic product and at the same time force the thread under the surfaces of the material where they may not be readily cut or injured.

Any desired mechanism may be utilized for feeding work between the wheel and the presser foot and as this feeding mechanism constitutes no part of the present invention, it has not seemed necessary to describe or illustrate it. After the wheel has once been set in proper position relative to the presser foot so that the teeth on the foot and wheel will properly cooperate, the said wheel and

presser will be maintained constantly in proper relation by the material between them and which is engaged thereby.

As has heretofore been stated the teeth 5 on the wheel and the teeth on the presser foot are the same distances apart and it is to be understood that the distance between every two adjoining teeth is the same as the distance between the depressions made by 10 the needle in sewing. For example, if the machine is set for ten stitches to the inch, the presser foot and wheel employed will operate to direct their teeth directly into the perforations made by the needle.

15 The presser foot and wheel can be quickly and easily removed and a foot and a wheel of a different size or number substituted therefor.

Under some conditions it is desirable to 20 limit the downward movement of the presser foot and of the lifter bar or rod to which it is attached and under such circumstances a collar, such as has been shown in Fig. 6, may be utilized, it being designed to fasten 25 this collar to the lifter bar adjacent its upper end so as to limit the downward movement thereof.

Various changes can of course be made in the construction and arrangement of the

parts without departing from the spirit or 30 sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. An attachment for sewing machines including a toothed wheel, and a toothed 35 presser foot coöperating with the wheel to simultaneously set the stitches in opposite faces of the work.

2. The combination with a base plate having an elongated opening, and a bar bridging 40 the opening and having a needle receiving opening, of a presser foot having stitch setting teeth depending therefrom, said foot being located above the bridge bar, a bearing 45 stud extending laterally from said bar and overhanging the elongated opening, and a wheel journaled on the stud and having pointed peripheral teeth coöperating with the teeth on the presser foot for simultaneously beading opposite faces of work fed 50 between the foot and wheel.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAY A. TENNEY.

Witnesses:

CHARLES P. CUTTER,
ALFRED C. PETERSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."