

No. 691,754.

Patented Jan. 28, 1902.

A. H. DEVOE.
SEWING MACHINE HEMMER.
(Application filed Sept. 19, 1898.)

(No Model.)

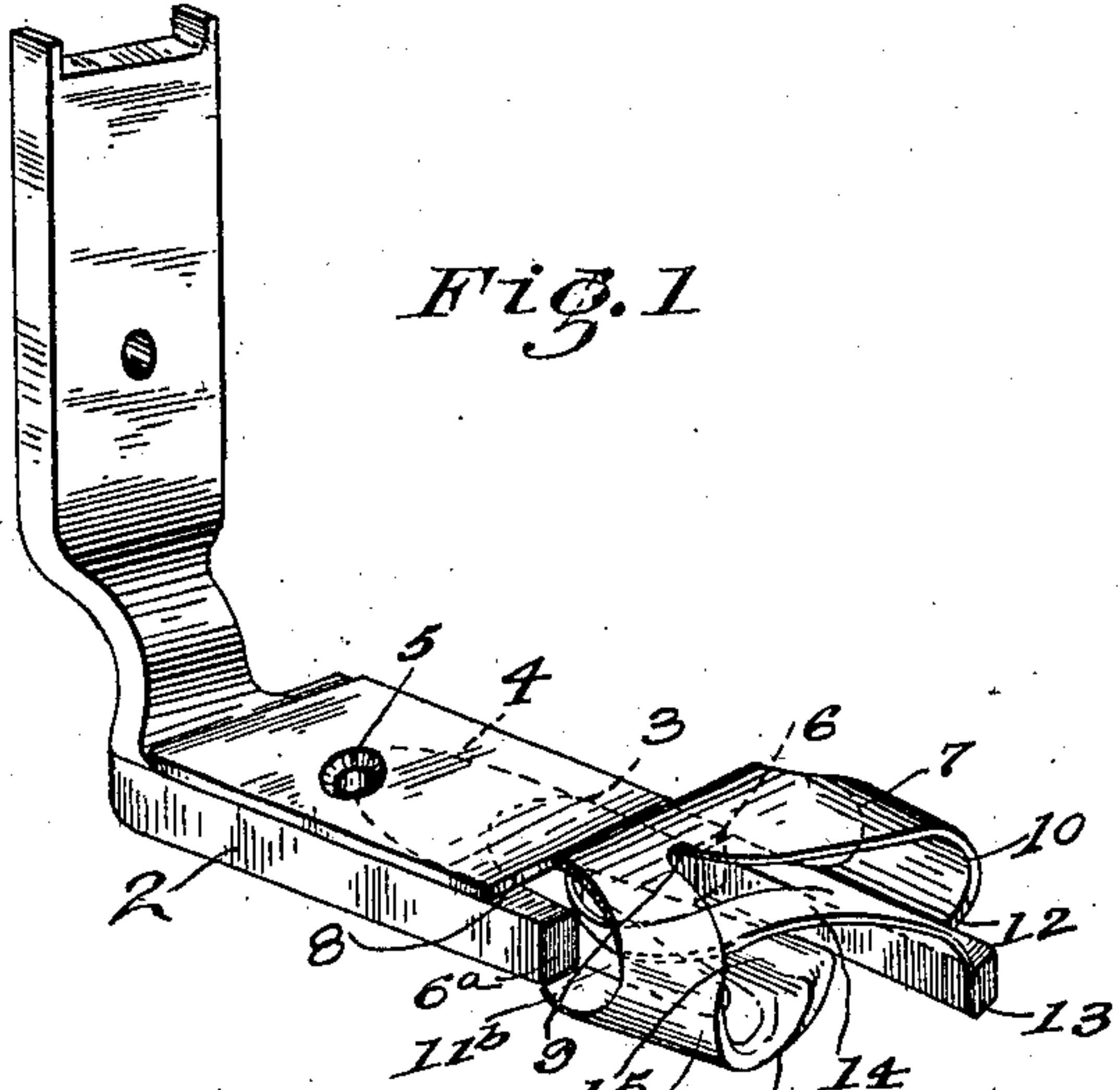


Fig. 1

Fig. 2

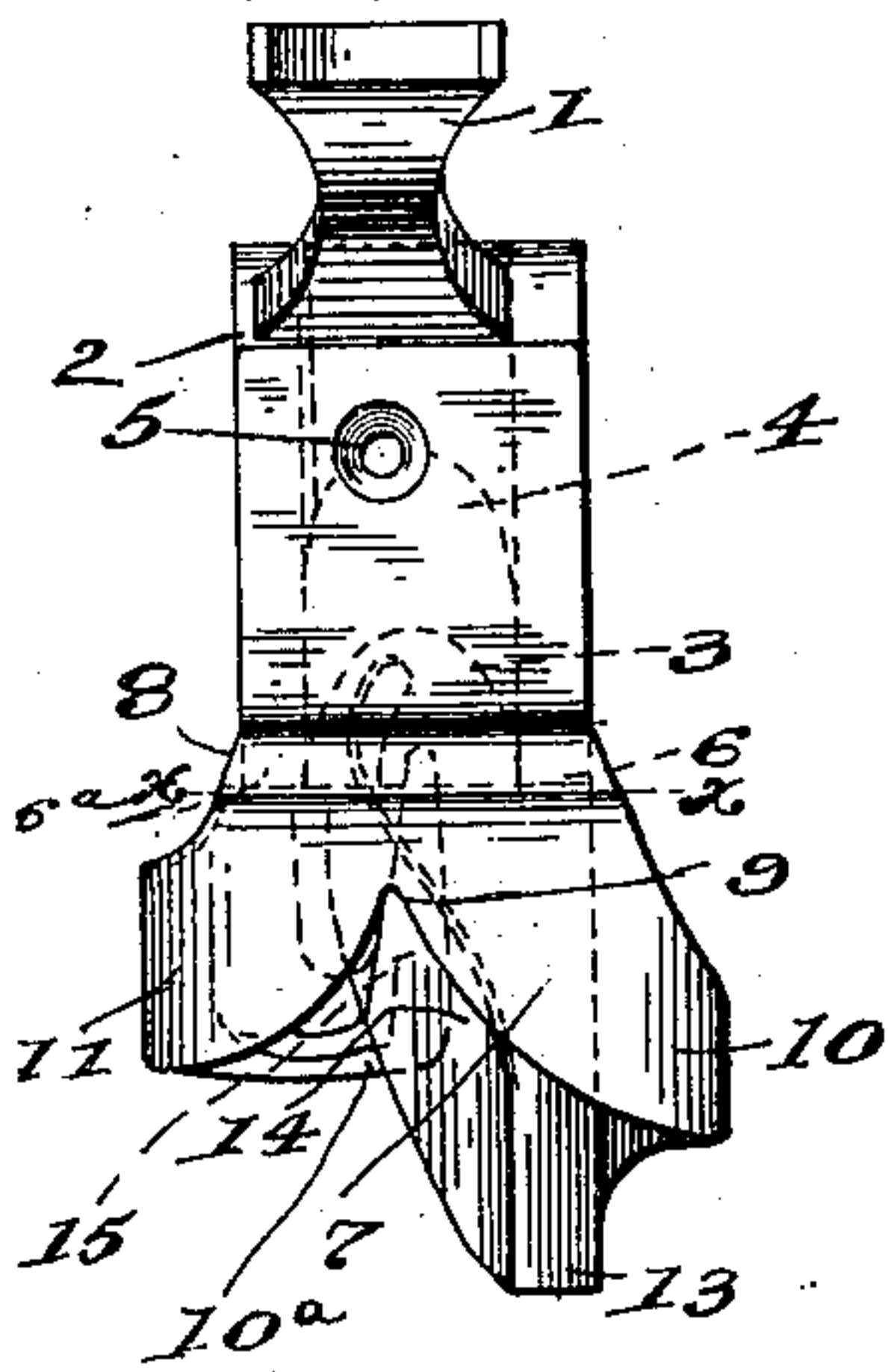


Fig. 4

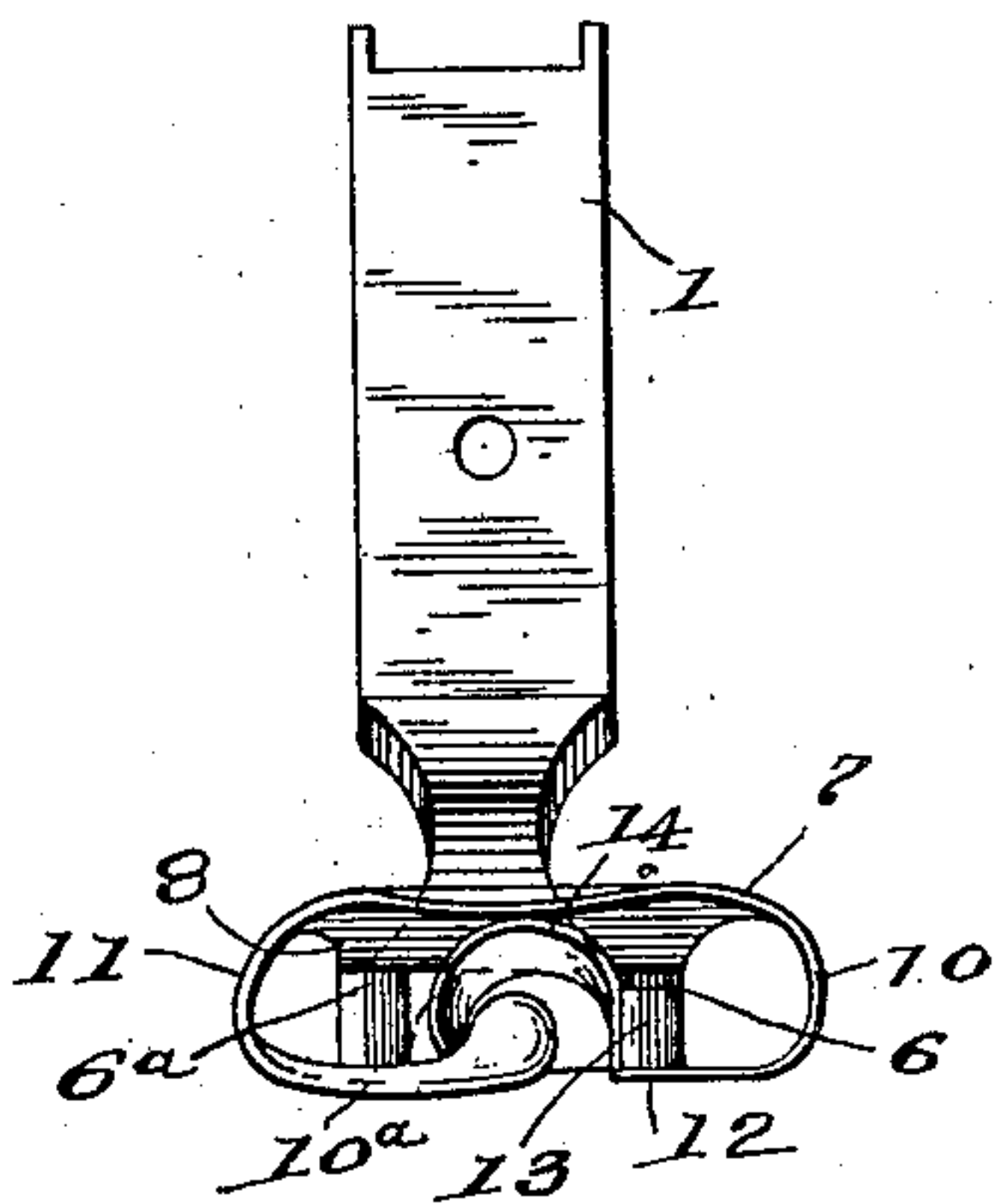


Fig. 3

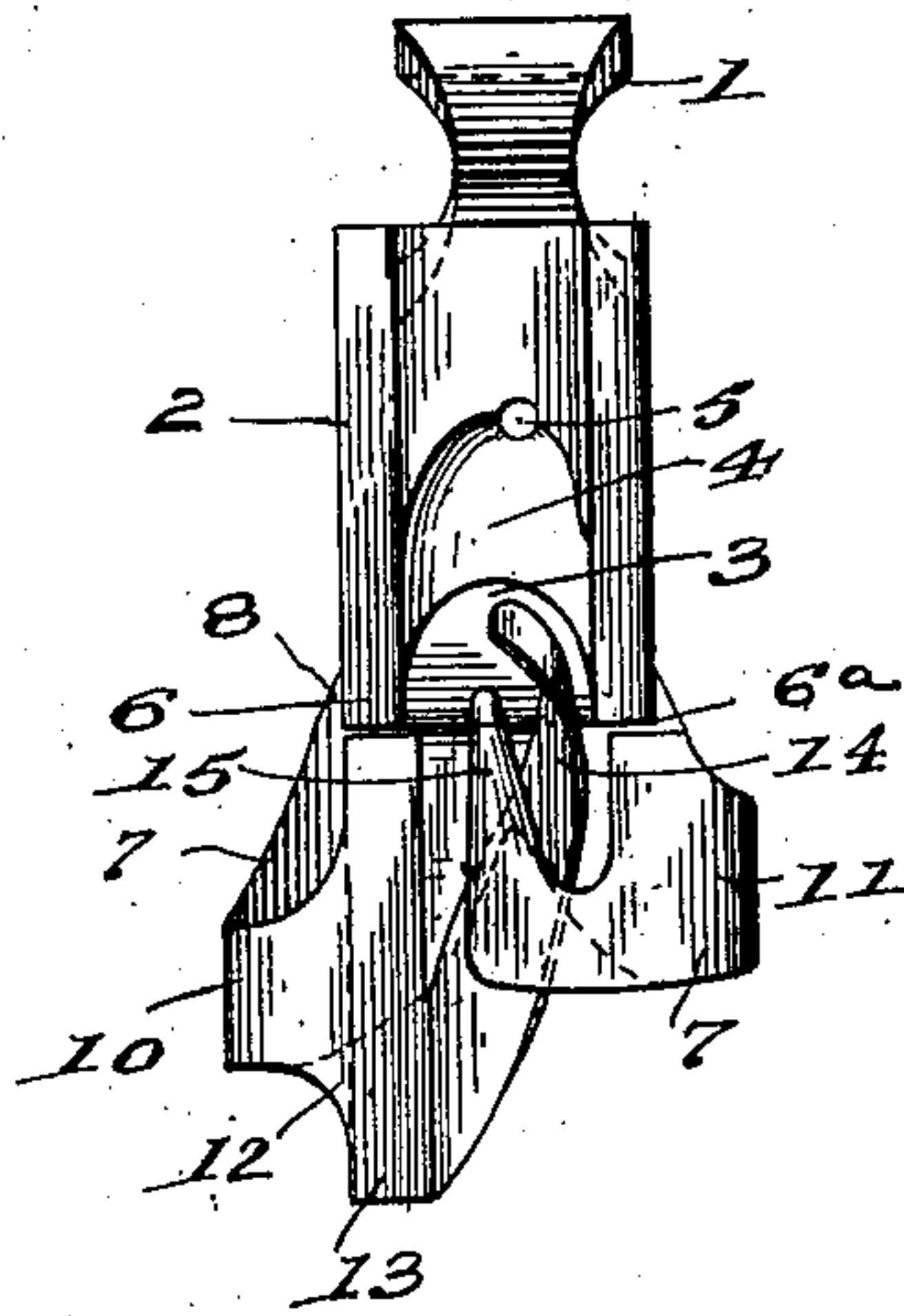
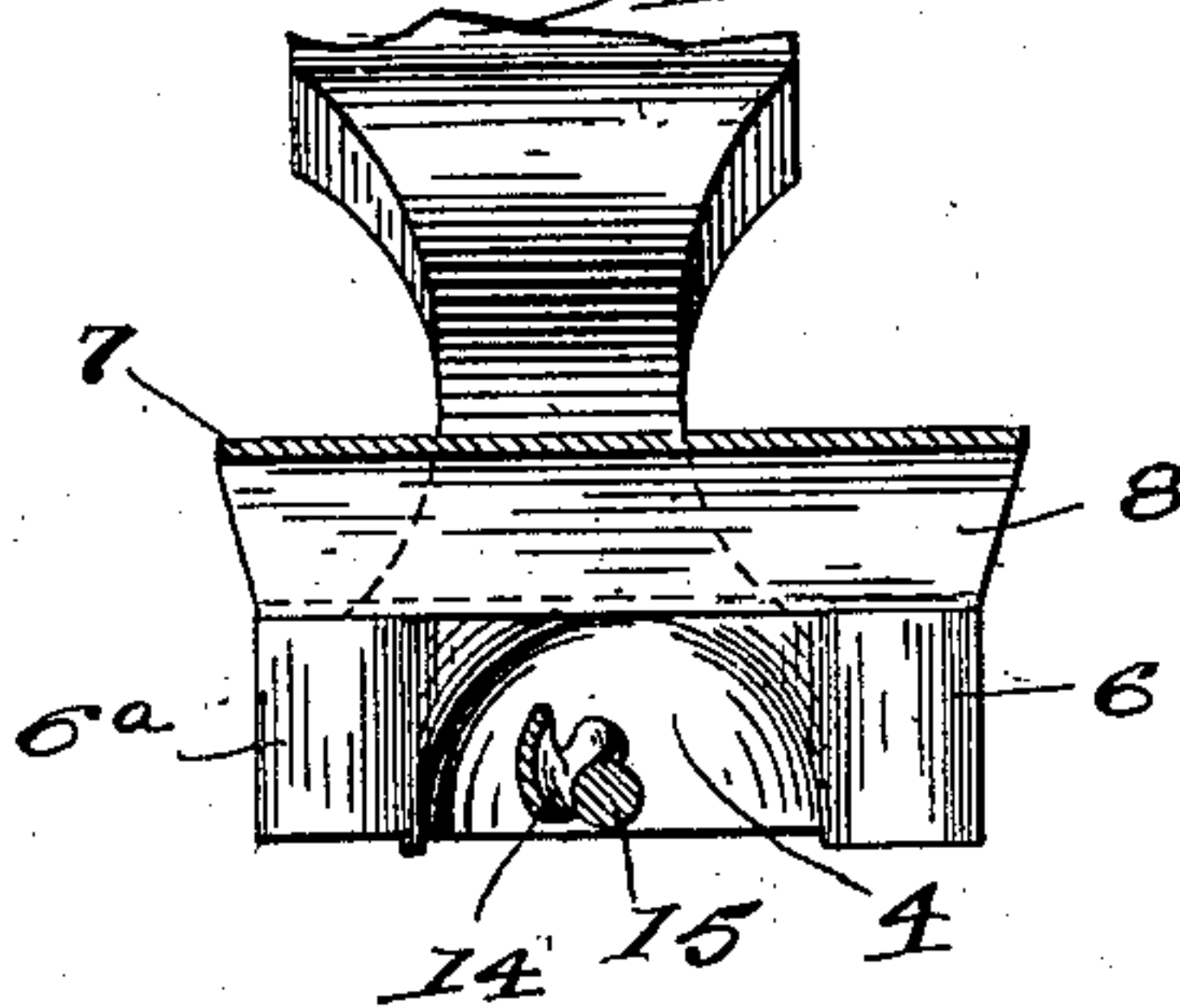


Fig. 5



Witnesses:
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UNITED STATES PATENT OFFICE.

ALBERT H. DEVOE, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
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SEWING-MACHINE HEMMER.

SPECIFICATION forming part of Letters Patent No. 691,754, dated January 28, 1902.

Application filed September 19, 1898. Serial No. 691,397. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. DEVOE, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sewing-Machine Hemmers, of which the following is a specification.

My invention relates to improvements in hemmers in which the parts are free to expand and contract with relation to each other automatically and allow cross-seams and other irregularities to pass through the hemmer without obstruction. In some of the devices of this class heretofore employed the expansion of one part of the device causes the contraction of another part thereof, which will thus obstruct and draw the goods out of shape during its passage through the machine. Other devices employ separate parts which yield to the passage of the goods and are held in place by separate springs, which do not yield equally or adequately in all directions for the purposes intended.

The object of my invention is to provide a hemmer in which all the parts are integral or inseparably connected and which will yield equally well in any direction in which the pressure is brought without correspondingly binding or pressing unduly upon other parts of the material passing through it; and the invention consists, essentially, in a presser-foot adapted to be secured to the machine in a suitable manner and having a spring folding-plate projecting forwardly therefrom, branching at each side, and bowed downwardly and inwardly, one of said branches being provided with a rearwardly-projecting turning scroll-plate and a rearwardly-projecting tongue located in the axis of the scroll, both of said members being held at their forward ends only and free to spread in any direction to thus admit of the passage of heavy seams, cross-seams, folds, or welts through the hemmer, while the hem is turned in a perfect manner without stretching the hemmed edge or retarding the passage of the goods.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view of my improved hemmer adapted to the arm of a sewing-machine presser-foot; Fig. 2, a plan view; Fig. 3, an inverted plan view; Fig. 4, a front elevation of said device, and

Fig. 5 a transverse sectional elevation in line $x x$ of Fig. 2 looking rearwardly and upon an enlarged scale to show more clearly the throat of the presser-foot of the adjacent ends of the tongue and scroll thereto.

In the device illustrated an arm 1 is adapted to the presser-foot arm of a sewing-machine and is provided with a forwardly-projecting rectangular plate or presser-foot 2, having a half-circular recess 3 and an adjacent concaved throat 4, projecting rearwardly upon the under side of and extending to the needle-opening 5, thus providing two square-ended abutments 6 6^a, one upon each side of the throat, between which the folded edges and seams of the fabric are held and directed properly to the needle.

A folding-plate 7, of spring-steel, is fixedly secured at its rectangular rear end to the corresponding upper surface of the presser-foot 2 and is provided with a needle-opening located over the corresponding opening 5 of the foot and is inclined upwardly and forwardly at 8 and bifurcated at 9, the two branching members 10 and 11 being bowed and extended forwardly, laterally, and inwardly, the innermost end 12 of the member 10 being fixed to, secured to, or made integral with a rectangular bar 13, located longitudinally at one side of the foot 2 and coincidently with the adjacent abutment-plate 6. The forward end and inner face of the bar 13 is made integral with or affixed to the forward end of a scroll 14, which projects rearwardly and extends within and to the middle part of the throat 4 of the presser-foot, being thus held free to yield freely upon and with the flexible member 10 of the spring folding-plate in any required direction. The innermost forward end 10^a of the member 11 is fixedly secured to the forward end of a tongue or coned pin 15, which projects rearwardly and axially within the scroll 14 to a point slightly within the throat 4 of the presser-foot, and the outer end 11^b of the said member 11 projects rearwardly upon one side of the presser-foot longitudinally and coincidently with the adjacent abutment-plate 6^a thereof, the said presser-foot being thus provided with yielding longitudinal and parallel side extensions, which serve to hold the

5 fabric down evenly upon each side of the hem while its free ends are being turned and folded one within the other, and thus properly directed to the throat and needle to be stitched together, the scroll, tongue, and throat making a perfect fold under all conditions.

10 All the parts above described are overhung and supported from a spring-steel plate and are adapted to yield freely in any direction to admit of the unobstructed passage of cross-seams, welts, or excessive thickness of material and also allow either heavy or light fabrics to be passed through the hemmer and properly operated upon.

15 The foot may be attached in a suitable manner to the bed-plate of the sewing-machine instead of to the presser-foot arm, and certain other details of construction may be varied without departing from my invention.

20 The hemmer herein described and claimed is made in such a form as to carry either thin flimsy material or extra heavy harsh or stiff material, the spring-plates adapting themselves automatically to the tension required for the different materials. As mentioned above, as the plates recede to allow heavy material to pass through they increase also in tension sufficiently for such heavy material, thus providing sufficient tension for any grade of material and no more.

30 I claim as my invention and desire to secure by Letters Patent—

1. The presser-foot, provided with the scroll, combined with the spring, attached to said foot and having at its free end the presser part, provided with the rigid tongue. 35

2. A hemmer presser-foot provided with a turning-scroll and with a presser part or member yieldingly mounted relative to said foot and, rearward of said yieldingly-mounted presser part or member, a tongue which of itself is rigid but which is yieldingly mounted, said tongue extending within and cooperating with said scroll. 40

3. In a hemmer, a foot having a throat upon the under side thereof in combination with a spring-plate having branching arms, one of said arms supporting a longitudinal bar in the form of an extension from the abutment upon one side of said throat, and a scroll affixed to one of said arms and a tongue affixed to the other of said arms located axially within the scroll and an extension from said arm extending from the opposite throat-abutment parallel to the said longitudinal bar, to hold the hem of the material between them while being folded, substantially as described. 50 55

In testimony that I claim the foregoing as my invention I have signed my name in the presence of two subscribing witnesses.

ALBERT H. DEVOE.

Witnesses:

WILLIAM H. ROWE,
H. I. LAHR.