

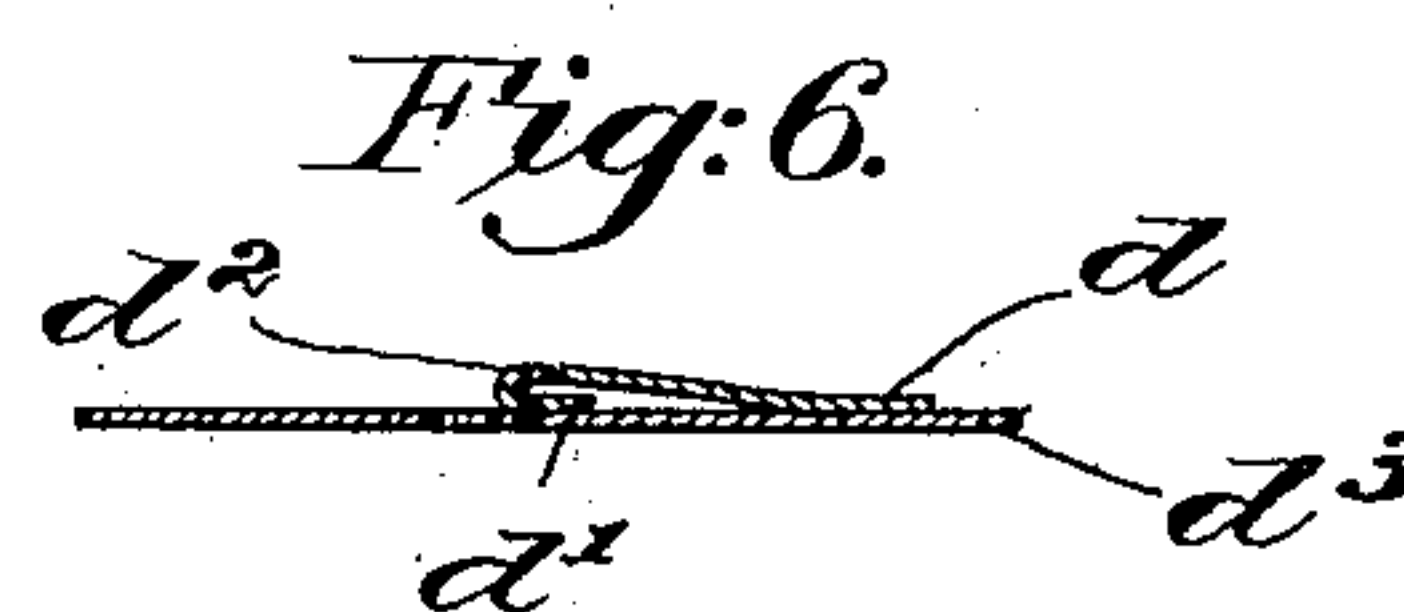
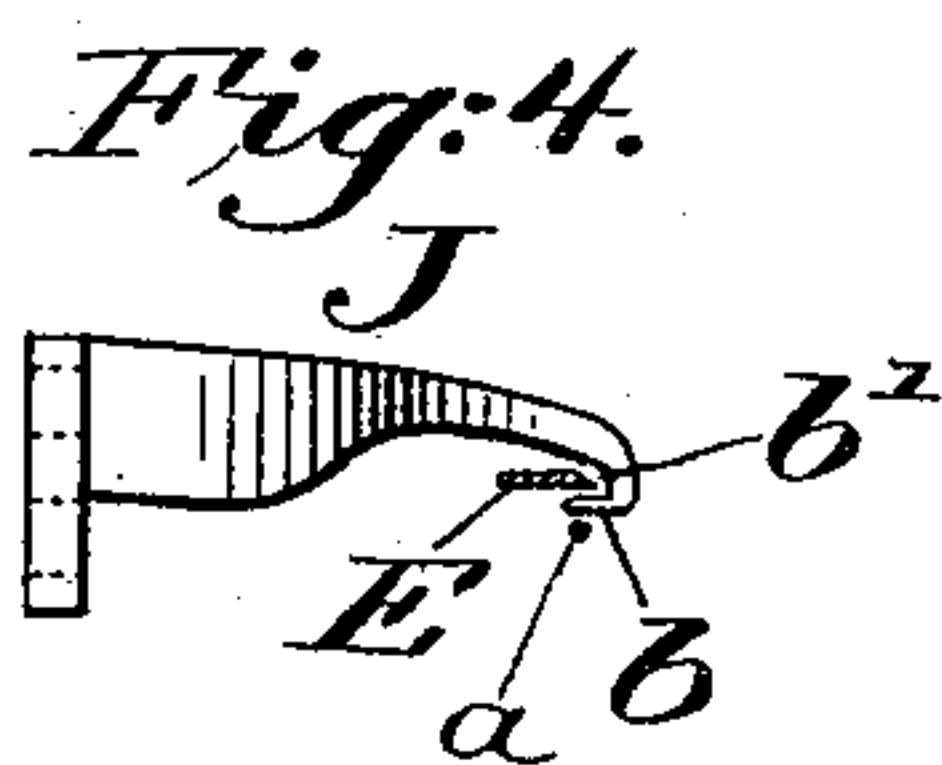
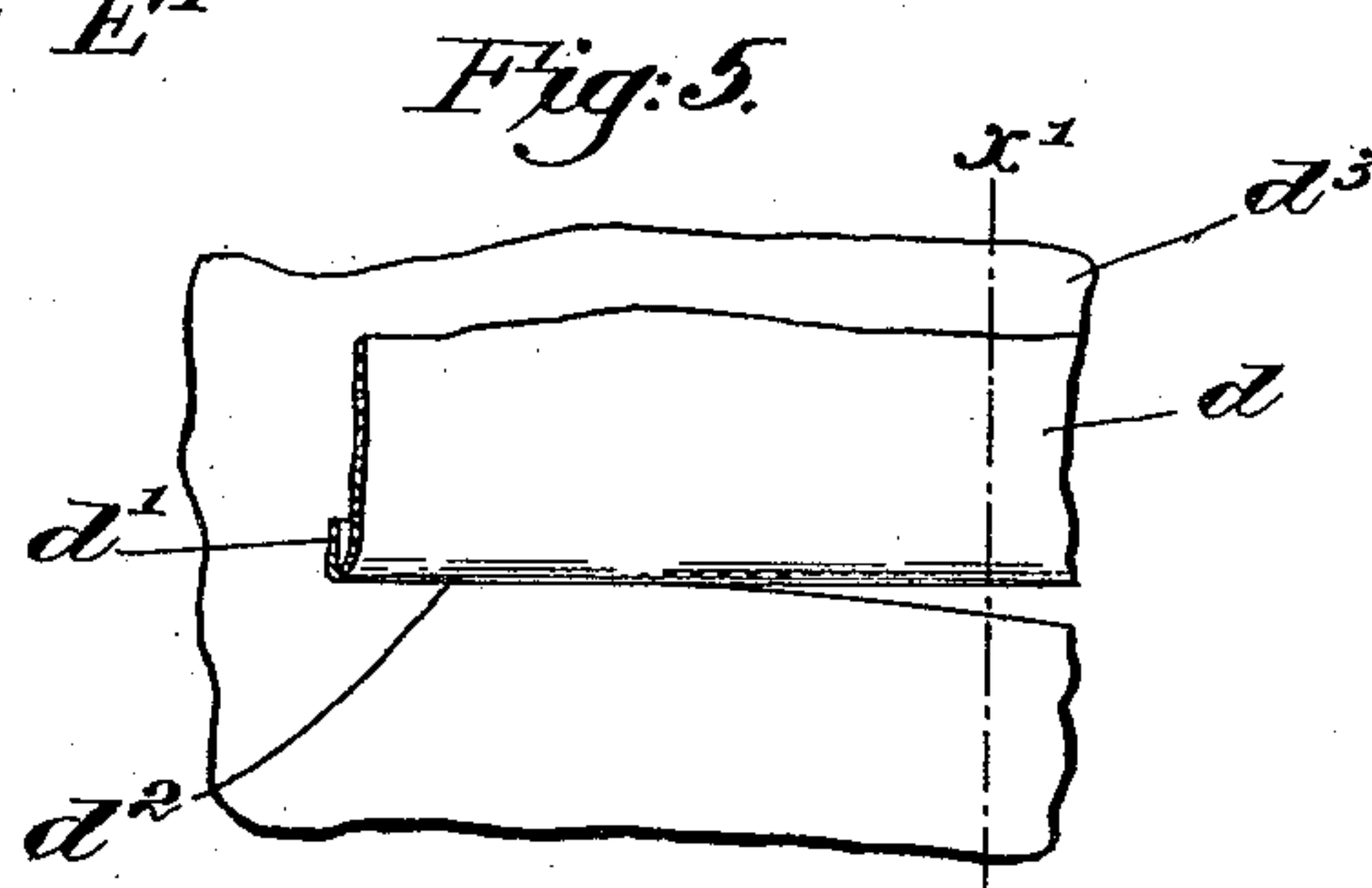
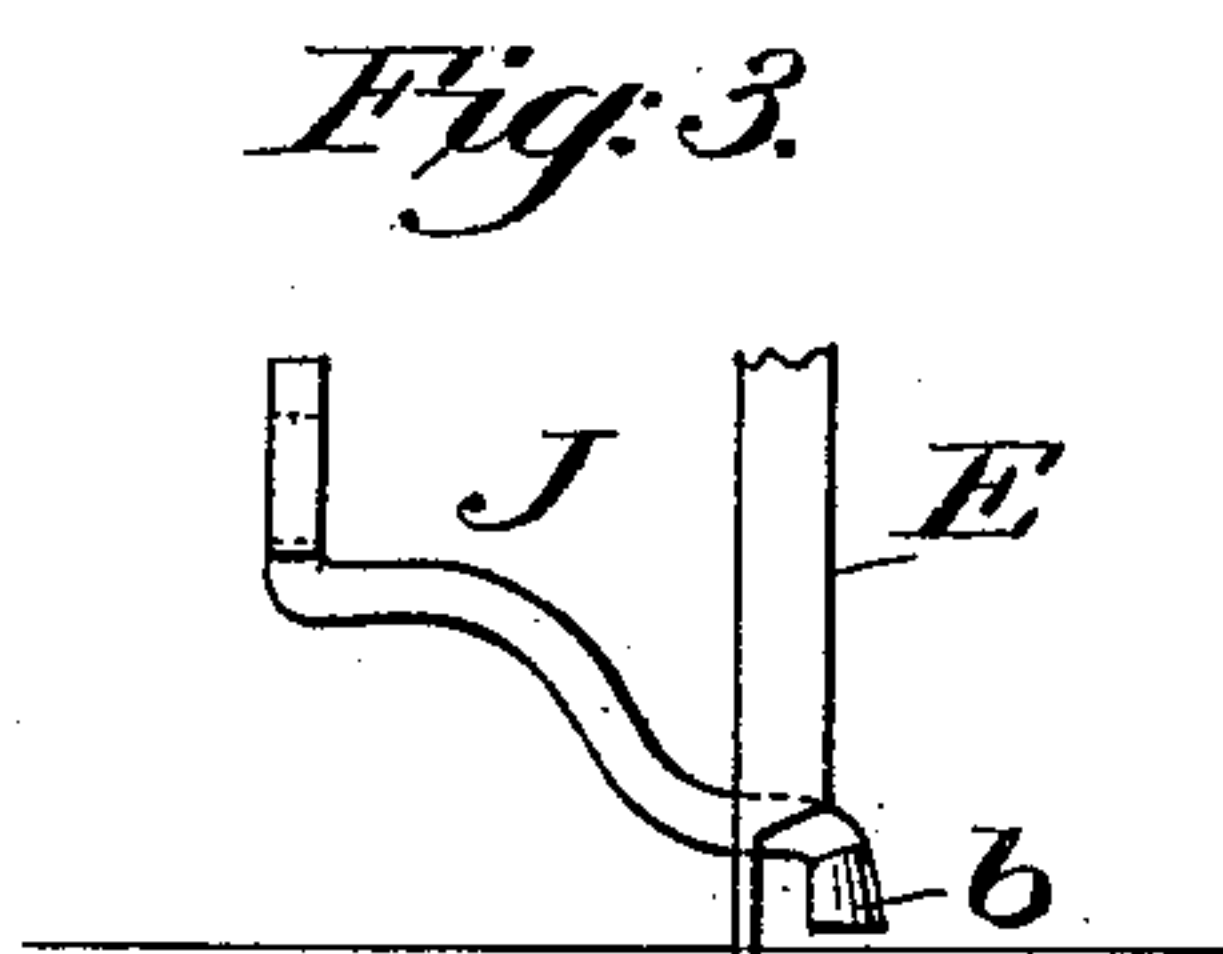
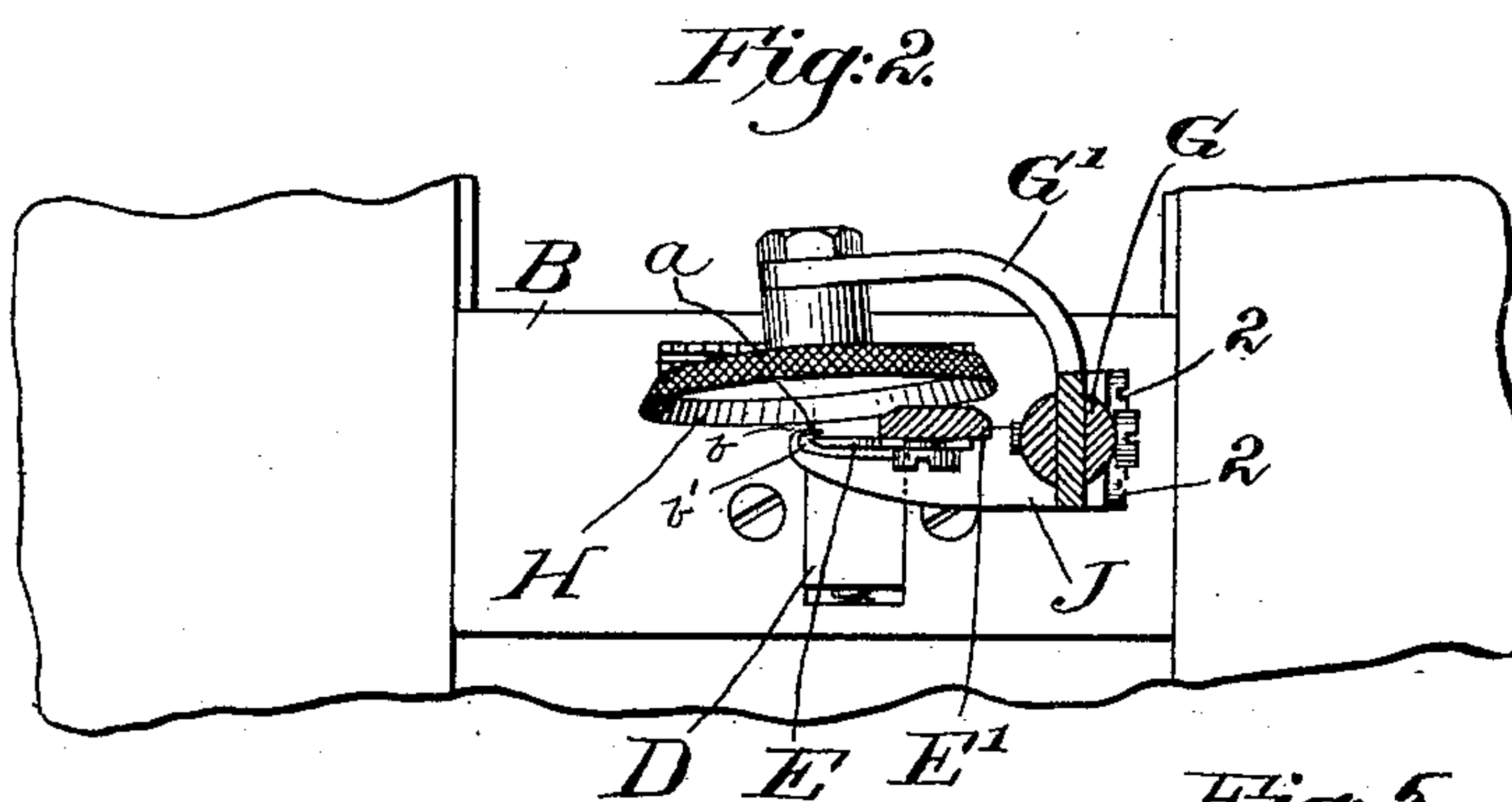
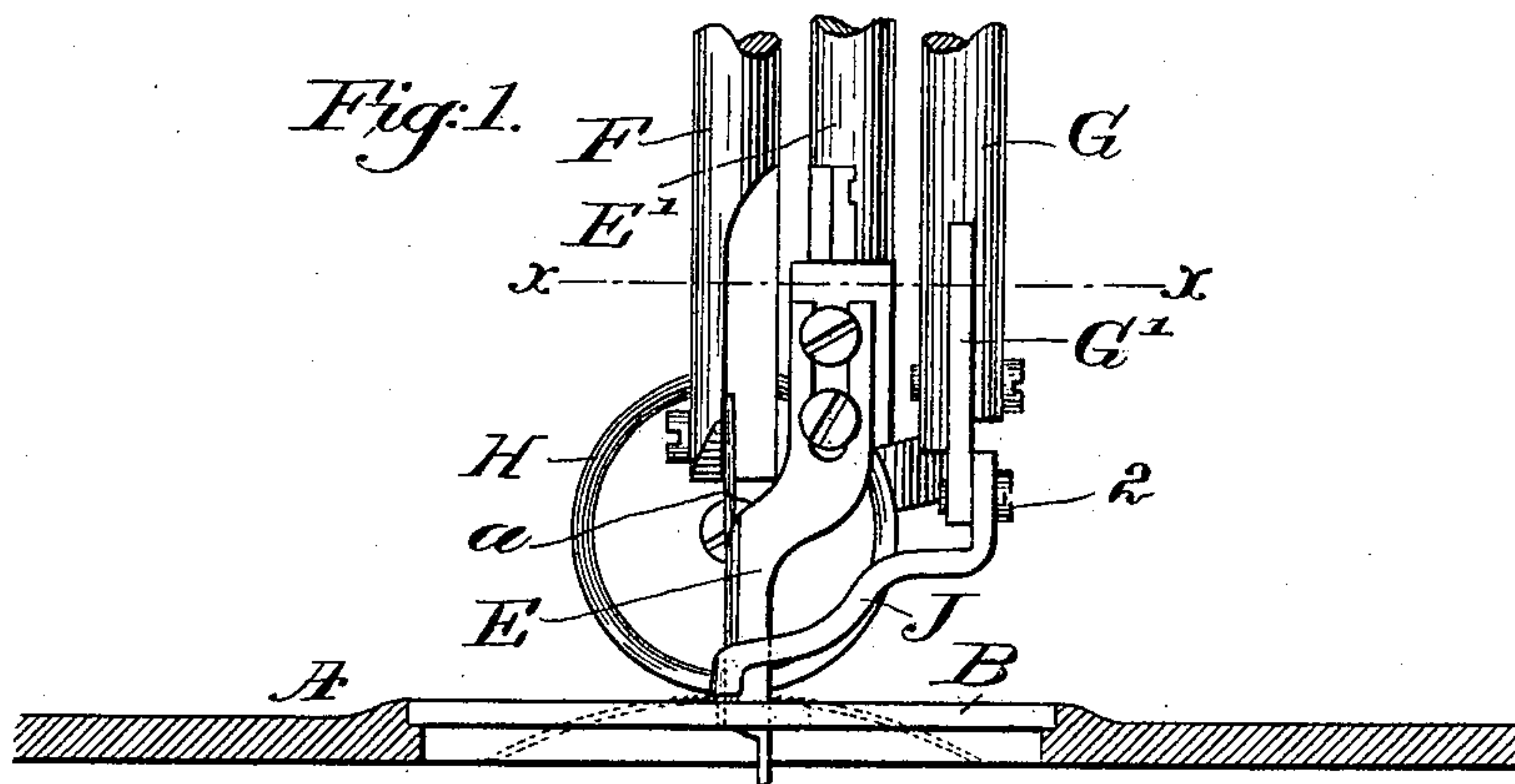
No. 616,306.

Patented Dec. 20, 1898.

A. FIEN & J. M. HARRISON.
SEAM TRIMMING MECHANISM FOR SEWING MACHINES.

(Application filed Feb. 4, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

ANTHONY FIEN AND JAMES M. HARRISON, OF ROCHESTER, NEW YORK,
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SEAM-TRIMMING MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 616,306, dated December 20, 1898.

Application filed February 4, 1898. Serial No. 669,036. (No model.)

To all whom it may concern:

Be it known that we, ANTHONY FIEN and JAMES M. HARRISON, of Rochester, county of Monroe, State of New York, have invented an
5 Improvement in Seam-Trimming Mechanism for Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like
10 parts.

In the manufacture of boots and shoes having tops of kid, goat-skin, cloth, and the like the upper edge of the top is commonly finished by stitching the lining to the top while the top
15 and lining are wrong side out, and the lining is then turned into the top, leaving a seam-finished edge, the stitches uniting the top and the lining and the raw or other edges of the material being thereby concealed, and there-
20 after a second row of stitches is commonly put around the top, leaving a beaded edge. To facilitate this work and employ but one row of stitches to secure the effect of a beaded edge and to obviate the appearance of a seam
25 at this edge, the upper edge of the material of the top may be turned in on itself for a short distance, and thereafter the lining may be put into the top with its end extended from the top or beyond the folded edge referred to,
30 and the two thicknesses of top represented by the inturned end and the one thickness of lining may then be united by a seam, and in the act of stitching the top and lining together the lining may be cut off flush with or close to the
35 upper end of the top. To prevent any liability of the sharp or cutting edge of the trimming-cutter marring or cutting the upper end of the top while trimming or cutting off flush with the end of the top the projecting lining, we have
40 provided an arm which is extended toward the operator at one side of the plane in which the cutter reciprocates, said arm being bent laterally at its end across the plane in which the edge of the cutter works, said end acting
45 against the upper end of the top and serving not only as an edge-guide, but also by its position to afford a shield embracing as closely as possible, but without touching, the cutting edge of the cutter moving rapidly up and
50 down at the end of the top and preventing

the said cutting edge from contacting with the upper end of the top. By making the end of this arm bent across the edge of the cutter as a fine point and extending it backwardly
55 somewhat to contact with the end of the top in the vertical line of the acting edge of the cutter it is possible to trim the lining flush with the end of the top.

Figure 1, in elevation and section, represents a sufficient part of a sewing-machine
60 with our improvements added to enable our invention to be understood. Fig. 2 is a section below the dotted line x , Fig. 1. Fig. 3 shows the guide for the cutter detached, with a part of the cutter in place, the guide showing the
65 attached edge-gage made as a leaf. Fig. 4 is a top or plan view of the parts shown in Fig. 3. Fig. 5 is a top or plan view of a part of the top of a boot and a part of its lining on which it is laid to be stitched, and Fig. 6 is a
70 section on the line x' of Fig. 5.

The cloth-support A, the plate B, having a slot in which works up and down the usual trimming-cutter E, said plate having a spring-actuated coöperating plate D, forming a part
75 of the slot in which the end of the said cutter reciprocates in operation, the needle-bar F, having an eye-pointed needle a , the cutter-carrier E', the presser-bar G, and its arm G', having a roller or presser H, are and may
80 be all as common in usual sewing-machines, and said parts in practice may be actuated in any usual manner and by any usual devices common to sewing-machines. Coöperating with these known parts we have provided a
85 peculiar arm J, shown as attached by screws 2 to the arm G', carrying the presser-foot or roller H of whatever construction, said arm being extended from its point of attachment toward the operator at one side of the recip-
90 rocating trimming-cutter, the extremity b of said arm, after having been carried to a point beyond the plane in which the edge of the trimming-cutter reciprocates, being turned toward the upper end of the shoe-top, it con-
95 tacting with said shoe-top in front of the cutting edge of the trimming-cutter and between the operator and the said cutting edge, said inturned end constituting an edge-gage and acting to maintain the upper end of the top 100

d^2 of the material in exactly the proper relation to the needle of the stitch-forming mechanism. The free end of this arm, bent laterally to constitute an edge-guide, crosses the plane in which the cutting edge of the trimming-cutter reciprocates and embraces said edge as close as possible without touching it, and by turning backwardly for a very slight distance this end of the arm, which acts as a gage, it is possible to bring the edge of the top so close to the cutting edge of the trimming-cutter that the trimming-cutter may trim the lining flush with the upper end of the top, and yet owing to the fact that the cutting edge is embraced as described the said edge cannot in any way touch and mar or cut the end of the top.

Referring to Figs. 5 and 6, the material for the top of the shoe is marked d and the lining for the said top is marked d^3 , the said top and lining being of any usual or suitable material, and the upper end of the top is shown as infolded to leave a finished edge d^2 . In Fig. 6 the material is shown in three thicknesses, and these thicknesses are stitched together through and through by the needle a at one operation, said needle having in practice coöperating with it any usual or suitable complemental under-thread carrier or device—such, for instance, as commonly employed in the Wheeler & Wilson sewing-machines. While the stitching is being done the free end or extremity of the arm b , crossing close to and in front of the acting edge of the trimming-cutter, acts against the upper end of the top, and the shape of this end is such, it will be noticed, as to prevent the contact of this rapidly-reciprocating edge of the cutter with the upper end of the top, yet owing to the peculiar shape and location of this acting end of the arm constituting the edge-gage with relation to the cutter it will be seen that the edge of the cutter may correctly trim the lining flush with the upper end of the top without any possibility whatever of the cutter cutting or marring the upper end of the top of the shoe or the finish of the upper end. The under side of the arm J need not necessarily touch the surface of the lining. The presser-foot will roll or bear on the material of the top.

Our device is very simple and durable and will work well with material of any thickness, cutting the same by a downstroke, the material being trimmed while lying on a fixed support.

We are aware, prior to this invention, that a sewing-machine has been used for forming welts or hems on fabrics, that the material has been folded to form a welt, and then a portion of the material of the welt has been cut off. The machine referred to has an upper and a lower blade, and the lower blade acts as an edge-gage on the folded part of the fabric, the upper movable blade cutting off the fabric beyond said folded part, leaving, however, an appreciably extended edge.

We are also aware that a presser-foot has been used in connection with a machine for forming welts or hems on fabrics and that said presser-foot has had extended from it, at a considerable distance in front of the acting edge of the blade, a finger which acted upon the fabric to assist in taking out any curls in the same; but such a finger could not operate as described of the inturned end of the arm J , it constituting an edge-gage or lip b .

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In a sewing-machine adapted to stitch a lining into the top of a shoe, the following instrumentalities, viz: a work-support, a needle-bar and needle, a cutter-carrying bar, a trimming-cutter attached thereto, a presser-bar having an attached foot adapted to bear on the material of the top, and an arm sustained by said presser-bar and extended in the direction opposite the direction of feed of the material to a point beyond the cutting edge of the trimming-cutter, said arm being then extended laterally across and close to the cutting edge of said trimming-cutter, the lateral extended end serving as an edge-gage to contact with the upper portion of the top close to the vertical plane in which the edge of the trimming-cutter acts to trim the lining, said laterally-turned end of the said arm preventing the edge of the trimming-cutter from contacting with the upper end of the top, yet enabling the said trimming-cutter to trim the lining flush with relation to the end of the top, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ANTHONY FIEN.
JAS. M. HARRISON.

Witnesses:

HORACE A. MCGUIRE,
CURTIS FITZ SIMONS.