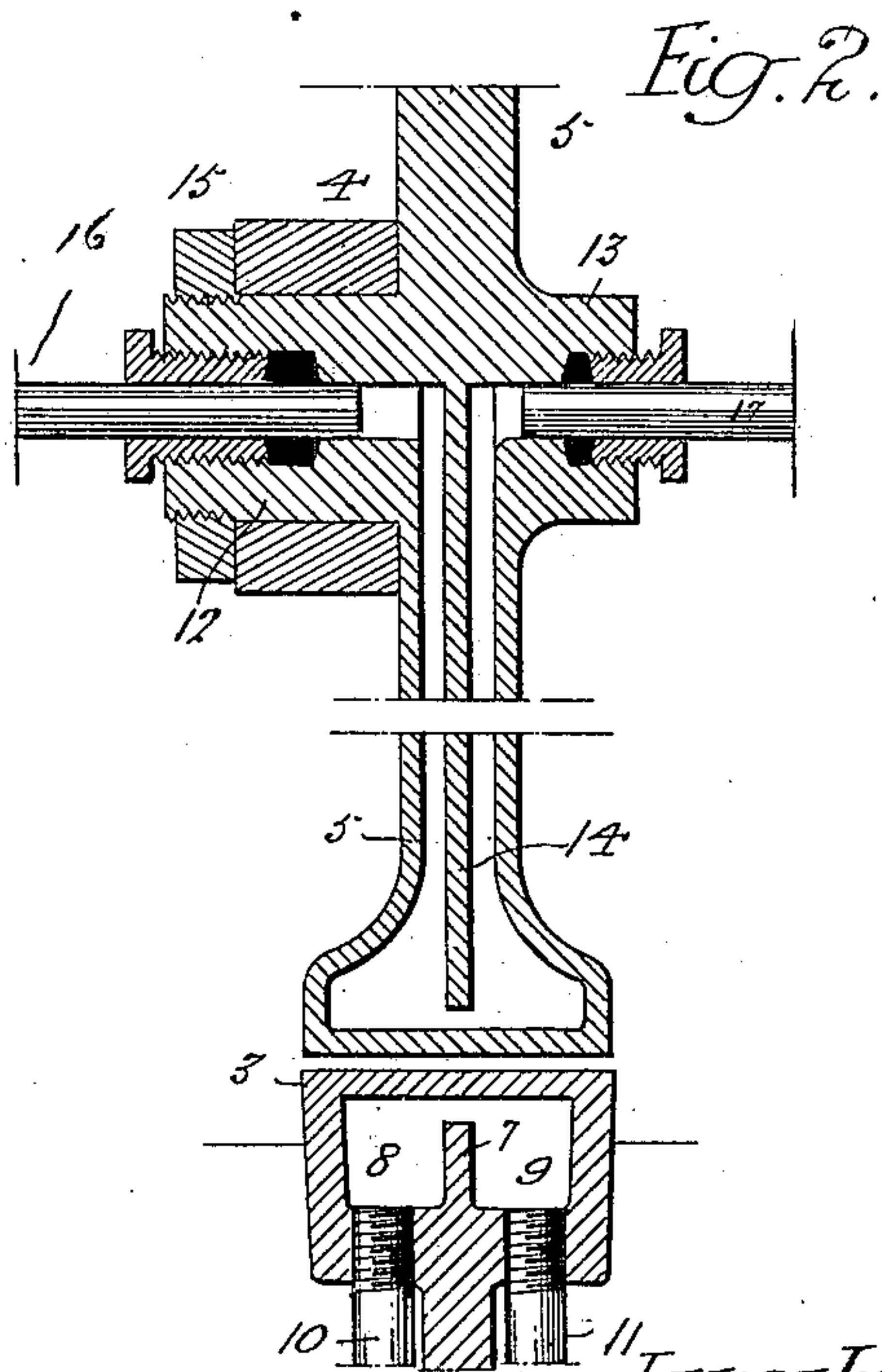
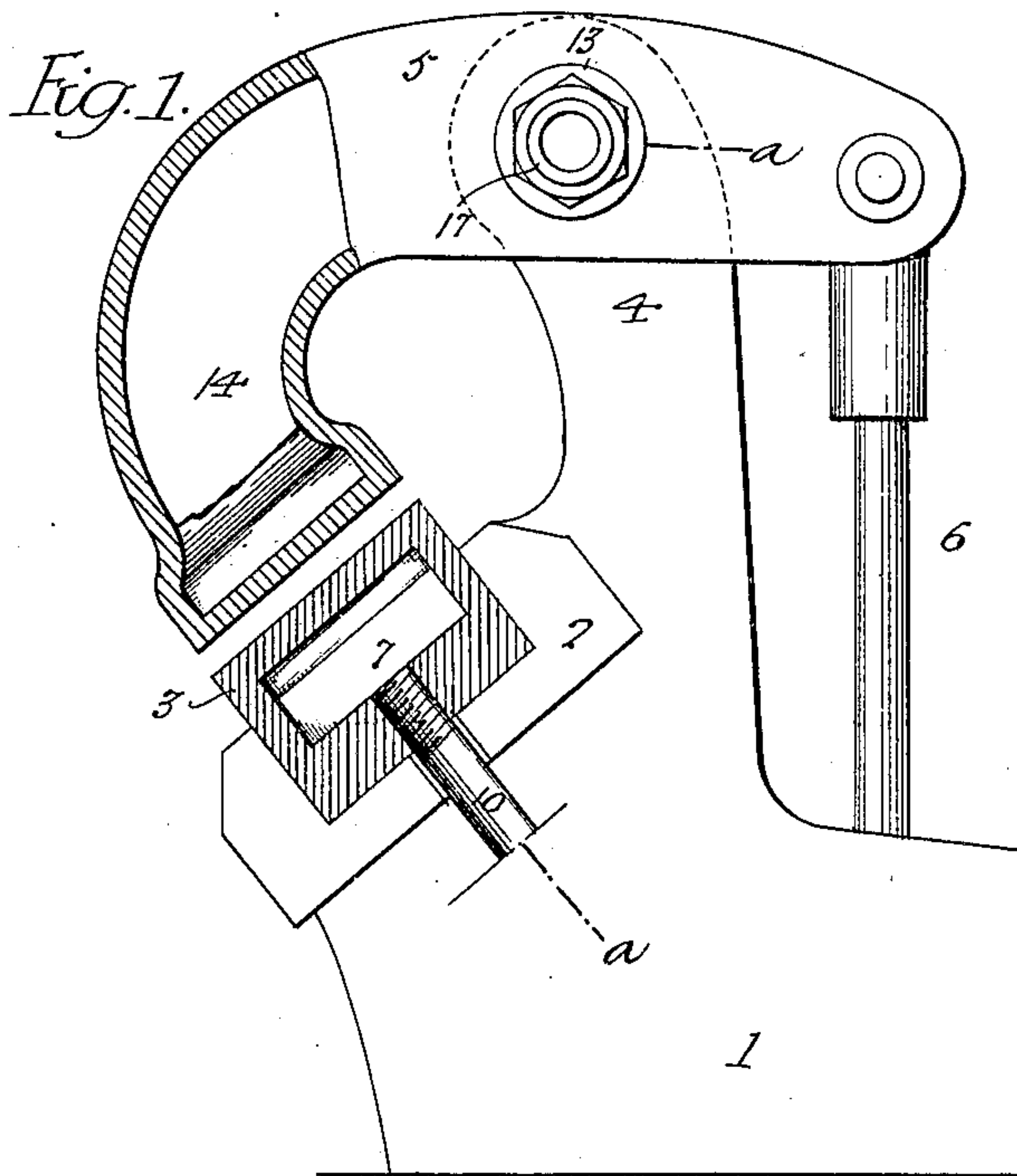


No. 830,901.

PATENTED SEPT. 11, 1906.

W. B. KEIGHLEY.
SHOE BEADING MACHINE.
APPLICATION FILED MAR. 20, 1905.



Witnesses:
Halter & Pullinger.
Hus & Cross.

Inventor:
William B. Keighley.
by his Attorneys,
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UNITED STATES PATENT OFFICE.

WILLIAM B. KEIGHLEY, OF VINELAND, NEW JERSEY, ASSIGNOR TO
CHARLES KEIGHLEY, WILLIAM B. KEIGHLEY, AND C. P. KEIGHLEY,
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SHOE-BEADING MACHINE.

No. 830,901.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed March 20, 1905. Serial No. 251,102.

To all whom it may concern:

Be it known that I, WILLIAM B. KEIGHLEY, a citizen of the United States, residing in Vineland, New Jersey, have invented certain Improvements in Shoe-Beading Machines, of which the following is a specification.

In manufacturing shoes the buttonhole-piece and its lining are usually sewed together while wrong side out, and when the buttonhole-piece is turned right side out after the completion of the sewing operation it becomes necessary to push out or distend the scallops which extend throughout the upper edge of the buttonhole-piece and then to press the same in order to impart a proper finish thereto. The machine intended for performing this duty is known as a "shoe-beading" or "beating" machine, and it comprises a reciprocating finger or pair of fingers and a hammer and anvil, the finger or fingers being inserted between the buttonhole-piece and lining and serving to push out the scallops to their proper conformation, after which the edge portion of the buttonhole-piece is passed between the anvil and hammer, which serve to flatten the same and impart the proper finish thereto.

My invention relates to the construction of this anvil and hammer, and its purpose is to enable them to better perform the finishing operation for which they are intended.

The invention consists in applying heat to the anvil and hammer or to either of them, so that the finishing operation will be due to the joint action of heat and pressure instead of to the action of pressure alone, as in the ordinary machine.

In the accompanying drawings, Figure 1 is a side view, partly in section, of sufficient of a shoe-beading machine to illustrate my present invention. Fig. 2 is a section on the line *a a*, Fig. 1.

In the above drawings, 1 represents part of the upwardly-projecting hollow arm of a shoe-beading machine, which has formed upon it a socket 2 for the reception of the anvil 3, said arm also having a top portion 4, to which is pivoted a lever 5, the downturned front end of which constitutes the hammer which operates in conjunction with the anvil 3, said lever being vibrated by

means of a cam, crank, or other suitable operating device of the machine, which acts upon the lever 5 through the medium of the connecting-rod 6, as shown in Fig. 1. The anvil 3 is hollow and has a central rib or partition 7, which, however, does not extend from top to bottom of the anvil, so that chambers 8 and 9 at the opposite ends of the anvil can communicate with each other over said partition.

With the chamber 8 communicates a pipe 10, through which air, steam, or other heated fluid derived from any available source can enter the chamber 8, and with the chamber 9 communicates a similar pipe 11, through which said air, steam, or other heated fluid after passing over the partition 7 and through the chamber 9 can escape to any convenient outlet.

The lever 5 has on one side a hollow trunnion 12 and on the other side a hollow boss 13, and said lever is hollow, but is provided with a central partition 14, extending almost to the outer end or head of the lever. Hence fluid in its passage from the hollow trunnion 12 to the hollow boss 13, or vice versa, is compelled to traverse the lever and pass through the head of the same. The hollow trunnion 12 is free to turn in the upper portion 4 of the arm 1 and is laterally confined thereto by a nut 15, and said hollow trunnion receives a pipe 16, which passes through a stuffing-box on the hollow trunnion and communicates with the interior of the lever 5 on one side of the partition 14, a similar pipe 17 passing through a stuffing-box on the hollow boss 13 and communicating with the interior of the lever 5 on the opposite side of said partition 14. Steam, air, or other heated fluid entering the hollow lever through either of the pipes 16 or 17 therefore is compelled to traverse said lever and pass through the head of the same before it can escape through the opposite pipe. Hence the acting surfaces both of the hammer and anvil can be heated to any required temperature and can thus be caused to subject the scalloped edge of the buttonhole-piece to a hot pressing action which will impart a finer finish thereto than can be attained by the action of pressing devices not thus heated.

Stuffing-boxes are used in connection with

the hollow trunnion 12 and hollow boss 13 of the lever 5 only when fixed pipes 16 and 17 are a necessity. If said pipes are flexible or susceptible of movement, they can be attached to the trunnion and boss or to any other available portion of the lever, and if it is not desired to maintain circulation of the heating fluid through the hollow lever 5, but one pipe need be used, and the same is true of the hollow anvil 3.

It will be evident that my invention can be applied to machines having hammers and anvils constructed and located differently from those which I have shown in the drawings, the latter illustrating only one type of machine, which I have selected for the purpose of illustrating my invention.

While in certain of the claims I shall refer to a hammer-lever as constructed in a definite manner, it will be understood that, as described in the specification and shown in the drawings, it is perfectly possible to apply the same construction to the stationary anvil without departing from my invention.

Having thus described my invention, I claim and desire to secure by Letters-Patent—

1. The combination in a shoe-beading machine, of a frame, a hammer pivoted thereto, means for oscillating the hammer on its pivot, the head of the hammer being hollow, means for admitting and exhausting heating fluid for the hammer, said means being connected to the hollow thereof and entering the same in the line of the pivot, a partition extending within the hammer to direct heating fluid to a definite portion of the head thereof, and an

anvil for the hammer, substantially as specified.

2. The combination in a shoe-beading machine, of a frame, a hammer pivoted thereto, means for oscillating the hammer on its pivot, the head of the hammer being hollow, means for admitting and exhausting heating fluid for the hammer, said means being connected to the hollow thereof and entering the same in the line of the pivot, a partition extending within the hammer to direct heating fluid to a definite portion of the head thereof, with a hollow anvil for the hammer provided with a partition, and means for introducing heating fluid to the anvil so as to cause it to flow adjacent to the face thereof around the partition, substantially as specified.

3. The combination in a shoe-beading machine, of a frame, a hollow hammer having a portion shaped to enter an opening in the frame and placed to serve as a pivot for the hammer, means for oscillating the hammer on the pivot, pipes connected to the hollow of the hammer and extending from opposite sides of the same in the line of its pivot, a partition extending within the hammer from a point adjacent to the entering pipes to within a relatively short distance of the end of one arm of the hammer, with an anvil for the hammer, substantially as specified.

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

WILLIAM B. KEIGHLEY.

Witnesses:

A. EDNA UNSWORTH,
HARRY C. DOWN.