Jan. 2, 1951 W. O. STEARNS 2,536,779

BACK GAUGE FOR STAPLING MACHINES

Filed March 22, 1949

Fig. 1

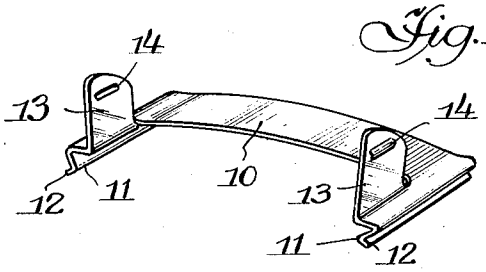


Fig. 2

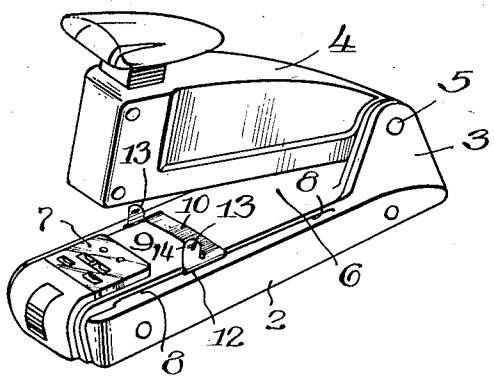


Fig. 3

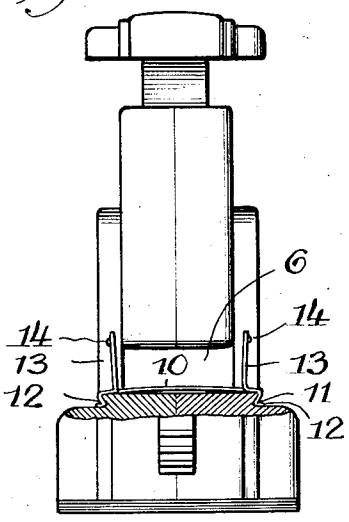
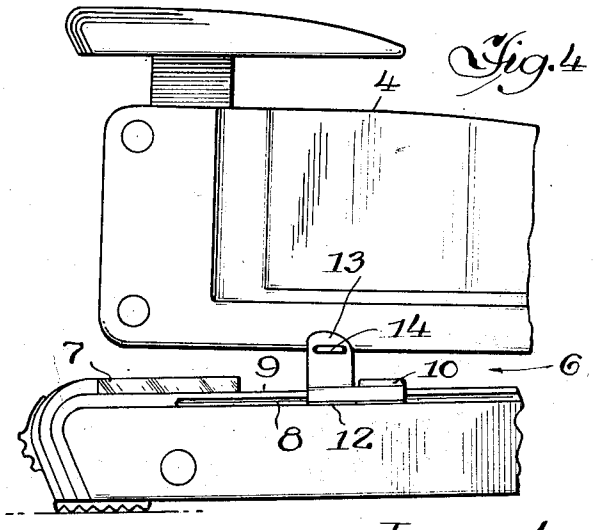


Fig. 4



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BACK GAUGE FOR STAPLING MACHINES

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1 Claim. (Cl. 1—3)

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This invention relates to a back gauge for stapling machines particularly adapted to regulate the position in which the machine applies a staple relative to the edge of the sheets being stapled.

It is an object of this invention to provide a simple and inexpensive back gauge that may be readily secured to or removed from a stapling machine. It is a further object of this invention to provide a back gauge that may be easily adjusted to vary the depth of insertion of the sheets to be stapled relative to the throat of the stapling machine. It is a further object of this invention to provide a back gauge that will not interfere with the operation of the stapling machine to which it is attached. Other objects of this invention will become apparent upon reading the following description, taken in conjunction with the accompanying drawing, in which:

Figure 1 is a detail perspective view of the back gauge embodying the invention;

Figure 2 is a perspective view of a stapling machine with the back gauge attached thereto;

Figure 3 is a front elevation of the stapling machine with a portion broken away to show the manner in which the back gauge is secured thereto; and

Figure 4 is a fragmentary side elevation of the stapling machine showing the back gauge attached thereto.

In the drawings, the reference numeral 2 indicates the base of a stapling machine having upstanding ears 3 at its rear end. A top member 4 is pivotally secured to the ears 3 by means of a hinge pin 5. The front end of top member 4 is spaced from the front end of base 2 to provide a throat 6 which extends to the front edges of ears 3 and in which the sheets to be stapled are inserted. The staple is driven through the portion of the sheets overlying the anvil 7 which is secured to the base 2 adjacent its front edge. In order to obtain uniformity in appearance of different groups of stapled sheets it is necessary that the groups of sheets each be inserted to the same depth in throat 6.

The base 2 is provided with an undercut recess 8 on each side just below its top surface. Recesses 8 extend from a point underneath the anvil 7 to a point just forward of the front edges of ears 3. The undercut recess 8 leaves a ledge 9 at the outer edges of the top surface of the base 2.

The back gauge is stamped from a single strip of resilient metal and comprises a transverse bridge portion 10 adapted to span the top edge of base 2. The ends of the metal strip are bent inwardly to form edge portions 11 adapted to fit into recesses 8. The extreme outer portions of the strip are bent outwardly to form flanges 12 to give the edges 11 enough rigidity to hold the back gauge in proper alignment. The bridge portion 10 is slightly longer than the width of the top surface of base 2 so that its central portion is spaced slightly above the top surface of the base. This space is necessary to allow the edges 11 to be snapped past the ledge 9 when the back gauge is applied to or removed from the stapling machine.

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In order to facilitate the manipulation of the back gauge when it is applied to or removed from the stapling machine, or when its position relative to anvil 7 is adjusted, a portion of the metal strip is cut out to form upstanding ears 13 which are spaced apart a distance sufficient to allow the top portion of the stapling machine to fit therebetween when it is pressed downwardly to drive a staple. In use, the user grasps the ears 13 between the thumb and forefinger and presses them inwardly to force edges 11 out of recesses 8 to remove the back gauge from the stapling machine. The ears may be slightly pressed inwardly to spread the edge portions 11 apart when they are to be snapped over the ledges 9 to attach the back gauge to the stapling machine. Each ear 13 is preferably provided with a stiffening rib 14 adjacent its upper edge. The ribs 14 also serve as a finger hold to facilitate either movement of the back gauge along the base 2, or removal of the back gauge from the base.

When the back gauge is positioned on the base of the stapling machine the front edges of the ears 13 form a stop against which the sheets to be stapled are engaged before the top is depressed to drive the staple. The friction of edge portions 11 in recesses 8 is sufficient to keep the back gauge in place against accidental displacement so that any number of groups of sheets may be stapled uniformly without resetting the back gauge. In order to adjust the position of the back gauge it is necessary only to push it in either direction. If the friction is too great to allow easy sliding movement the ears 13 may be pressed inwardly slightly to reduce the friction.

Although I have described a preferred embodiment of my invention in considerable detail, it will be understood that the description thereof is intended to be illustrative, rather than restrictive, as many details may be modified or changed without departing from the spirit or scope of my invention. Accordingly, I do not desire to be restricted to the exact structure de-

scribed, except as limited by the appended claim.

I claim:

In combination with a stapling machine base having a pair of recesses on opposite sides adjacent its top surface, a resilient back gauge having inwardly bent edges engaging said recesses and upstanding ears operable when pressed inwardly to disengage said edges from said recesses.

WESLEY O. STEARNS.

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