P. S. KEATING & W. A. OVERLEY.

STAPLING TOOL.

APPLICATION FILED OCT. 17, 1911.

1,167,080.

Patented Jan. 4, 1916.

Fig. 1.

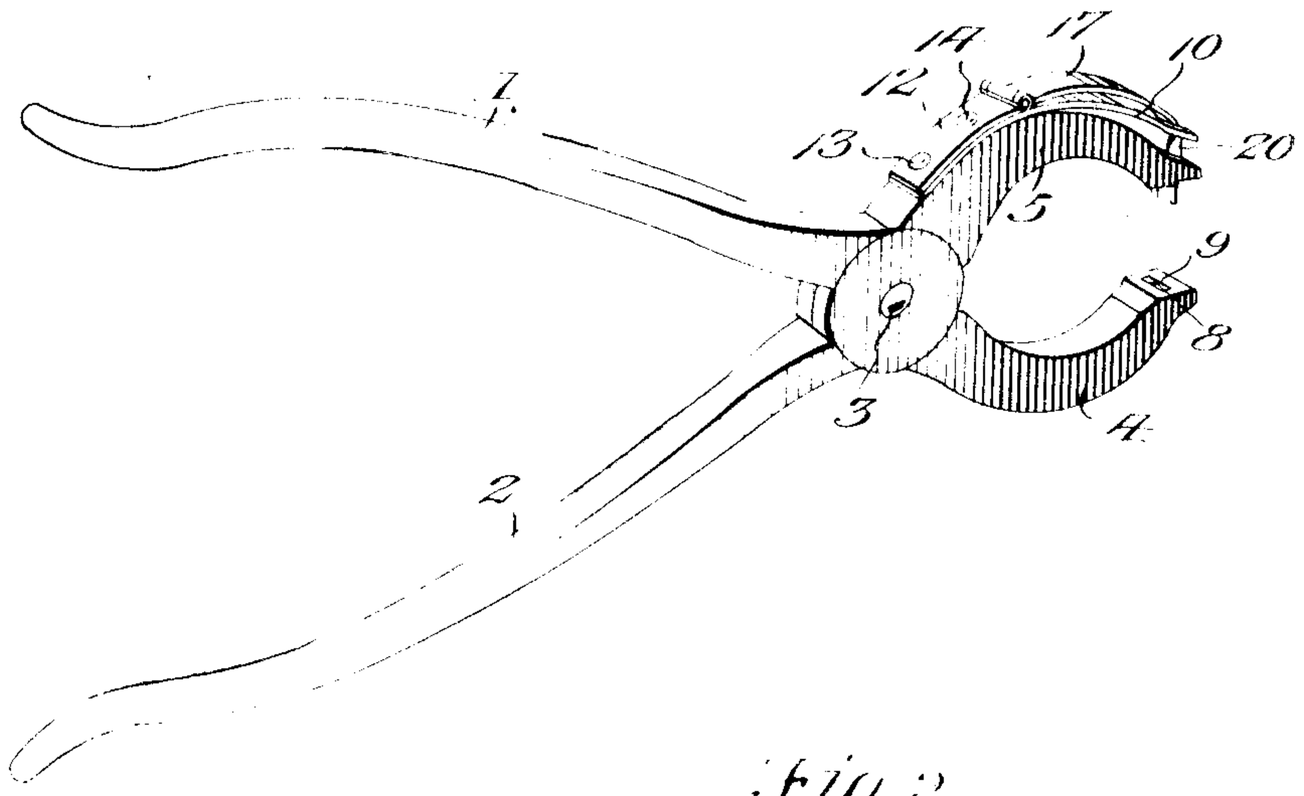

Fig. 2.

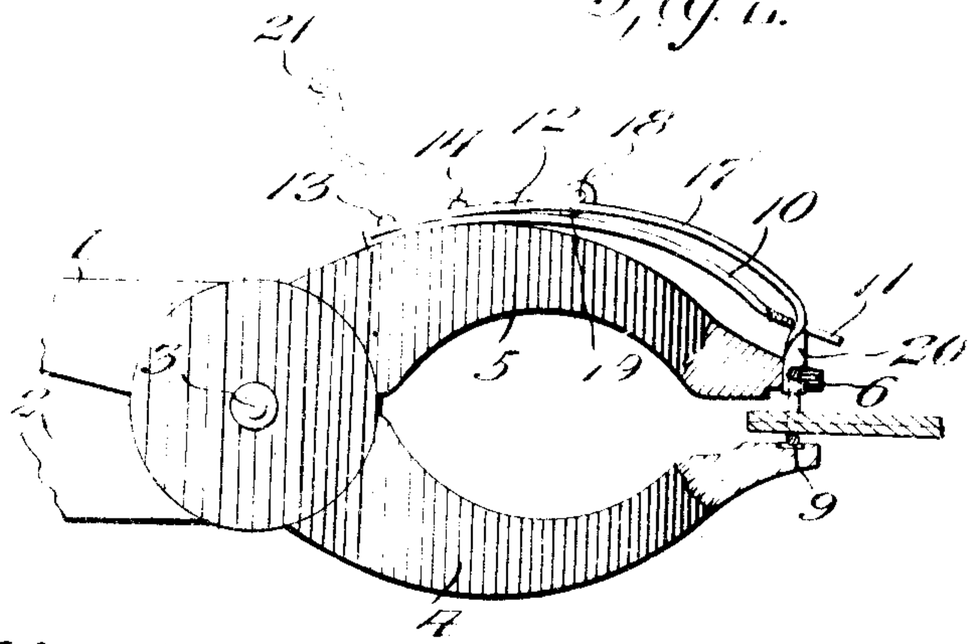

Fig. 3.

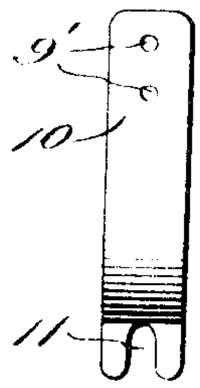

Fig. 4.

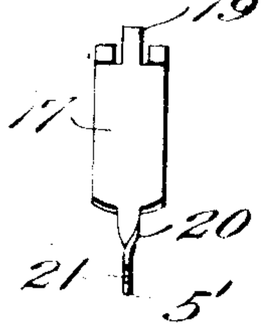

Fig. 5.

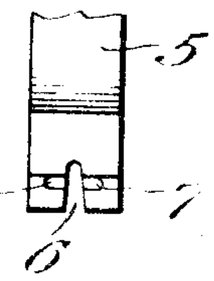

Fig. 6.

Witnesses

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STAPLING-TOOL.

1,167,080. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed October 17, 1911. Serial No. 655,146.

To all whom it may concern:

Be it known that we, PETER S. KEATING and WILLIAM A. OVERLEY, citizens of the United States, and residents of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stapling-Tools, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to stapling tools and aims primarily to provide a hand tool for applying staples for securing bows on slippers and in fact for securing any two pieces of light material together, which tool may be conveniently and quickly manipulated both to apply the staple and to release the same after it is applied.

A further aim of the invention is to provide an attachment for an ordinary shoe button applying tool or the like which will adapt the tool for use in applying staples, without in any way interfering with its use as originally intended.

A still further aim of the invention is to provide means for firmly holding the staple to be applied in position, the means being readily operable to release the staple after its application.

With these and other objects in view the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and finally pointed out in the appended claims, it being further understood that changes in the specific structure shown and described may be made within the scope of the claims, without departing from the spirit of the invention.

In the accompanying drawings forming a part of this specification and in which like numerals of reference indicate similar parts in the several views: Figure 1, is a perspective view of the tool embodying the present invention. Fig. 2, is a vertical transverse sectional view through the ends of the jaws of the tool, showing a staple arranged thereon and about to be set. Fig. 3, is a top view of the leaf spring. Fig. 4, is a top view of the forward section of the staple holding member. Fig. 5, is a bottom view of the upper jaw end. Fig. 6, is a perspective view of one of the staples.

In the drawings, the tool embodying the present invention is illustrated as consisting in part of two crossed pivoted handles, one of which is indicated by the numeral 1, and the other by the numeral 2. The pivot for the handles is indicated by the numeral 3, and beyond the said pivot the handles are formed with jaws 4 and 5, respectively, which are adapted to be closed upon movement of the handles 1 and 2, in the direction of each other.

The upper jaw 5, of the tool is formed with a slot 6, which enters from the outer end and communicating with oppositely positioned staple receiving recesses 7, which open at their inner ends into the said slot, as shown in Fig. 5. The back of the staple to be set is seated in these recesses 7, and extends into the slot 6, as will be presently explained. That face of the lower jaw 4, which opposes the jaw 5, is formed with an upsetting recess 8, shown in Fig. 1, having a raised intermediate rib 9.

Secured to the upper side of the jaw 5, by a means to be presently explained, is a leaf spring 10, with apertures 9′, formed in its end and this spring projects above the end of the said jaw and has an edgewise entering slot 11, as shown in Fig. 3, and this spring has a normal tendency to spring away from the said jaw 5. The staple holding device of the present invention embodies a rear member 12, which is secured to the jaw 5, by means of a screw 13, threading therethrough and into the jaw 5. This screw also passes through one of the apertures 9′, within the spring 10, and serves to secure the two members in place. A stud 14, projects from the jaw 5, adjacent to the screw 13, through an aperture 9′ and a suitable opening formed in the member 12, and this stud serves to hold these members against lateral displacement, as will be readily understood.

A spring leaf finger 17, is hinged as at 18, to the forward end of the member 12, and is adapted to assume either the full line or dotted line position shown in Fig. 2, of the drawings. This finger is formed or provided at its hinged end with an ear 19, which is adapted to ride over the upper side of the spring 10, as the finger is swung from one position to the other, depressing said spring 10, and holding the said finger in either of the illustrated positions by reason of its engagement with the said spring. At its free end, the spring finger 17, is reduced in width and is twisted at its reduced portion, as indicated by the numeral 20, to form a tongue 5′, which is adapted to pro-

ject through the slot 6, in the manner shown in Figs. 1 and 2, of the drawings. The forward edge of this tongue is formed with a notch 21, which is adapted to register with the inner ends of the notches 7, when the tongue 5′, of the finger is in position in the slot 6.

The staple adapted to be set by the tool above described, is clearly shown in Fig. 6, of the drawings, and includes legs 22, and a connecting portion 23, which is formed with a bight 24.

In using the tool, the staple shown in Fig. 6, is disposed with its bight 24, seated in the slot 6, in the jaw 5, and its portions 23, engaging in the recesses 7. The finger 17, is then depressed against the tension of the spring 10, until the bight of the staple is seated in the notch 21, of the tongue 5′. The finger is then released, whereupon the spring 10, will force the finger upwardly, thereby firmly seating the bight of the staple in the manner stated. The staple will thus be held with the free ends of its arms 22, presented toward the upsetting notches or recesses 8, in the jaw 4, and when the jaws are closed, the pieces to be secured having been inserted between the jaws, the said ends of the arms of the rivet will be forced through the pieces to be secured and will be upset by the walls of the recess 8, and the raised portion 9, therein, in the manner illustrated in Fig. 4, of the drawings. After the staple has been set, the spring 10, may be depressed by the thumb, whereupon the tongue will be released from the staple. It will be readily understood that by swinging back the finger 17, the tool may be used to set buttons, and for other purposes.

Having thus described our said invention, what we claim as new and desire to secure by United States Letters Patent, is:

1. In a device of the class described, relatively movable jaw members, one of said members being formed with a slot and the other member being formed with upsetting recesses, a spring secured upon the first mentioned member, and a finger hingedly connected with the spring and provided with a portion arranged to project through the said slot and having a notch to receive the head of a staple or the like to be set, the said spring being arranged to normally tend to swing the said finger away from the member upon which the spring is mounted.

2. A tool embodying two crosswise pivoted handles, each formed with a jaw, one an upper and the other a lower jaw, said upper jaw having an end-entering slot and also oppositely positioned staple receiving recesses communicating with said end-entering slot, the face of said lower jaw being provided with an upsetting recess opposite said staple receiving recesses, a leaf spring secured to the upper side of said upper jaw and having an edgewise entering slot, a rear member secured to said upper jaw, and a spring leaf finger hinged to said rear member and provided at its hinged end with an ear arranged to ride over the upper side of said spring, said finger at its free end being reduced in width and twisted to form a tongue arranged to project through said leaf spring slot, and formed with a notch, all arranged as and for the purpose set forth.

3. In a tool of the kind described, a pair of coöperating pivoted jaws, one of said jaws being slotted at its forward end, handles for operating said jaws, a resilient member secured to said slotted jaw, said member having a slot registering with the slot of said jaw, and a staple-carrying member bearing upon said resilient member and having a hook portion projecting through the slot of said resilient member and yieldingly fitting in the slot of said jaw.

4. In a tool of the kind described, a pair of coöperating pivoted jaws, one of said jaws being slotted at its forward end, handles for operating said jaws, a leaf spring secured on said slotted jaw, said spring having a slot registering with the slot of said jaw, and a staple-carrying member pivoted on said slotted jaw and bearing adjacent one end upon said spring, said staple-carrying member having a staple-engaging hook projecting through the slot of said spring and yieldingly fitting in the slot of said jaw.

5. In a tool of the kind described, upper and lower coöperating pivoted jaws transversely recessed on their under and upper faces, respectively, said upper jaw being longitudinally slotted at its forward end, handles for operating said jaws, a leaf spring secured on said slotted jaw, said spring having a slot registering with the slot of said jaw, and a staple-carrying member pivoted on said slotted jaw and loosely bearing adjacent one end upon said spring, said staple-carrying member having a staple-engaging hook projecting through the slot of said spring and yieldingly fitting into the slot of said jaw.

In testimony whereof we affix our signatures, in presence of two witnesses.

PETER S. KEATING.
WILLIAM A. OVERLEY.

Witnesses:
THOS. PINDER,
WILLIAM S. DILLER.