(No Model.)

# J. F. THAYER.

## BUTTON FASTENER DETACHING IMPLEMENT.

No. 342,480. Patented May 25, 1886.

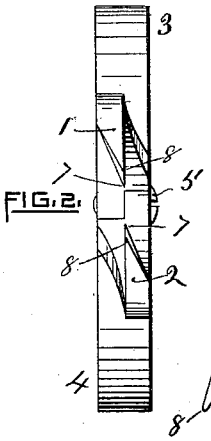


FIG. 2.

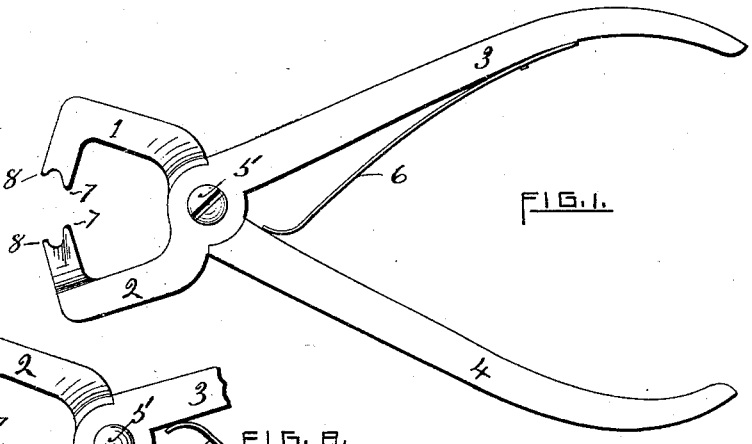


FIG. 1.

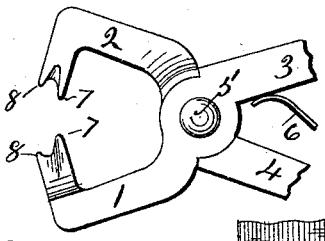


FIG. 8.

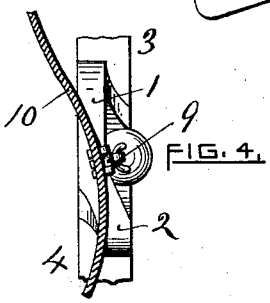


FIG. 4.

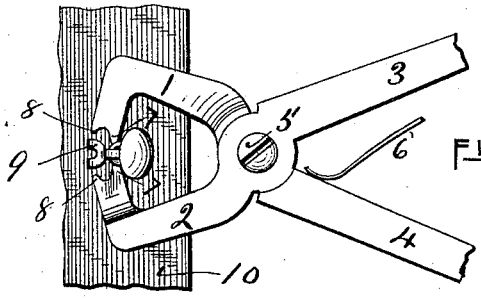


FIG. 3.

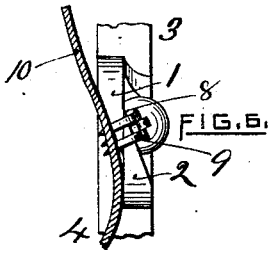


FIG. 6.

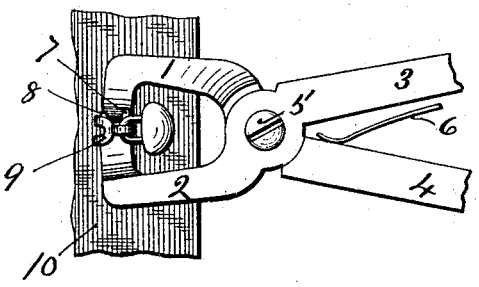


FIG. 5.

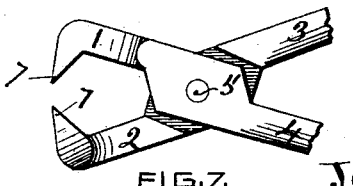


FIG. 7.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

JAMES F. THAYER, OF PROVIDENCE, RHODE ISLAND.

## BUTTON-FASTENER-DETACHING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 342,480, dated May 25, 1886.

Application filed February 18, 1886. Serial No. 192,390. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES F. THAYER, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Button-Fastener-Detaching Implements; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an implement for detaching or removing a pronged metallic button-fastener from a shoe or other article. Fasteners of the class mentioned are employed to secure eye-shank buttons to material by passing the pending prongs of the fastener through the material and bending and clinching the ends of said prongs on the under surface, and when necessary for any reason to detach said fastener from the shoe or other article its removal is attended with difficulties, as it is desirable that the surface of the material remain uninjured and the button be not destroyed. Various devices have been employed for detaching the said fasteners—such as pointed awls, and also pliers, which straighten a single prong at a time—but none of these devices embody my improvement, which consists in the present instance of two members, shown as jaws pivoted together and having handles to operate like pliers, each of said members being formed in a wedge shape, the thin edge of which is provided with projecting points adapted to be inserted between the fastener and the material, the closing of the two wedge-shaped members causing the prongs of the fastener to be straightened and to be drawn completely out of the material without injury to the surface of the same.

To illustrate the use of my invention I have shown in the drawings and described in the specification my improvement as adapted for use in detaching a three-pronged button-fastener, consisting of a plate with two prongs at the front and a single or button-carrying prong at the rear, said plate to rest on the surface of the material, the prongs being passed through the material and clinched on the under surface when attached thereto.

Figure 1 is a front view of my improved fastener-detaching implement; Fig. 2, an end view of the same; Fig. 3, a front view of the implement in position for detaching a fastener from material, showing the location of the two jaws with relation to the fastener; Fig. 4, an end view of the same; Fig. 5, a front view of the implement, showing the position of the two jaws at the close of the detaching operation; Fig. 6, an end view of the same. Fig. 7 is a front view of a modified form of implement. Fig. 8 is a rear view of my improved fastener-detaching implement.

The implement consists in the present instance, mainly, of two members or jaws, 1 and 2, provided with handles 3 and 4, and pivoted together by the screw 5, the said members being acted upon by the spring 6, tending to separate the jaws. The ends of the jaws 1 and 2 are formed wedge-shaped, and the thin edge of the ends are provided with projecting points 7 and 8, separated by a slight groove, said groove and points being thinned to an edge, as shown in Figs. 1 and 8. The inner surface of the jaws 1 and 2 are on a line with or parallel to each other, thus allowing the jaws to pass each other when operating upon a fastener, each jaw being formed tapering outward from the inner surfaces, as fully shown in Fig. 2, forming a parallel wedge when the two jaws are brought together.

In detaching a button-fastener from a shoe or other article the two jaws 1 and 2 of the implement are laid flat upon the material 10, with the inner points, 7, inserted beneath the single prong of the fastener 9, the button resting on the material toward the operator, the implement assuming the position substantially as shown in Figs. 3 and 4 of the drawings. A pressure on the handles 3 and 4 of the implement forces the points 7 beneath the fastener 9, and upon the points 8 reaching said fastener they are forced between the plate of the fastener and the fabric, and the two wedge-shaped ends being brought together causes the plate to be lifted from the fabric, straightening the prongs of the fastener and drawing them completely out of the material, the implement assuming the position as in Figs. 5

and 6 of the drawings. The button is then easily separated from the fastener and is in perfect condition for subsequent use, the fastener being practically worthless for a second attachment.

By means of my improvement I am enabled to produce an implement whereby pronged fasteners can be easily and quickly removed from a shoe or other article without injury to the surface of the material or to the button and without danger to the operator.

I have shown and described my improvement as adapted to be used in detaching a three-pronged button-fastener. It is evident that the same principle of forcing a "double" or "parallel" wedge, so called, between the material and the fastener, may be employed with equal result with any form of fastener, the form of the wedge-shaped ends of the jaws being adapted to the particular form of fastener used, as, for illustration, the implement shown in Fig. 7 is especially adapted for removing a fastener having two prongs, wherein the prongs are clinched inward toward each other, the end of the wedge being provided with the single points 7 7, as shown in said figure, the implement operating on the fastener in the same manner as in the one previously described.

The number and location of the wedge-shaped ends is not material, the object sought being to provide a plier-like implement with a wedge-shaped end to insert between the fabric and the fastener, and thereby lift the fastener bodily from the fabric by straightening the prongs of the fastener, as herein described.

Having described my invention, I claim as new and desire to secure by Letters Patent—

1. An implement for detaching pronged button-fasteners from a shoe or other article, consisting of two members pivoted together, each member provided with a projecting wedge-shaped end thinned to an edge, the adjacent flat surfaces of said ends being in line and adapted to pass each other and form a parallel wedge between the fastener and the material in detaching said fastener therefrom, substantially as described.

2. In an implement for detaching pronged fasteners from a shoe or other article, two members, each provided with a wedge-shaped end having projecting points, the inner flat surfaces of said ends being in line with each other and adapted to pass each other and form a parallel wedge between the fastener and the material, substantially as and for the purpose specified.

3. In an implement for detaching pronged button-fasteners from a shoe or other article, the members 1 and 2, formed as described, and provided with wedge-shaped ends having points 7 and 8, the inner surface of said ends being on a line with each other and adapted to pass each other to form a parallel wedge, substantially for the purpose set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

JAMES F. THAYER.

Witnesses:

F. A. SMITH, JR.,

CHARLES GREENE.