

(No Model.)

J. F. THAYER.
BUTTON FASTENER.

No. 332,967.

Patented Dec. 22, 1885.

Fig. 1.

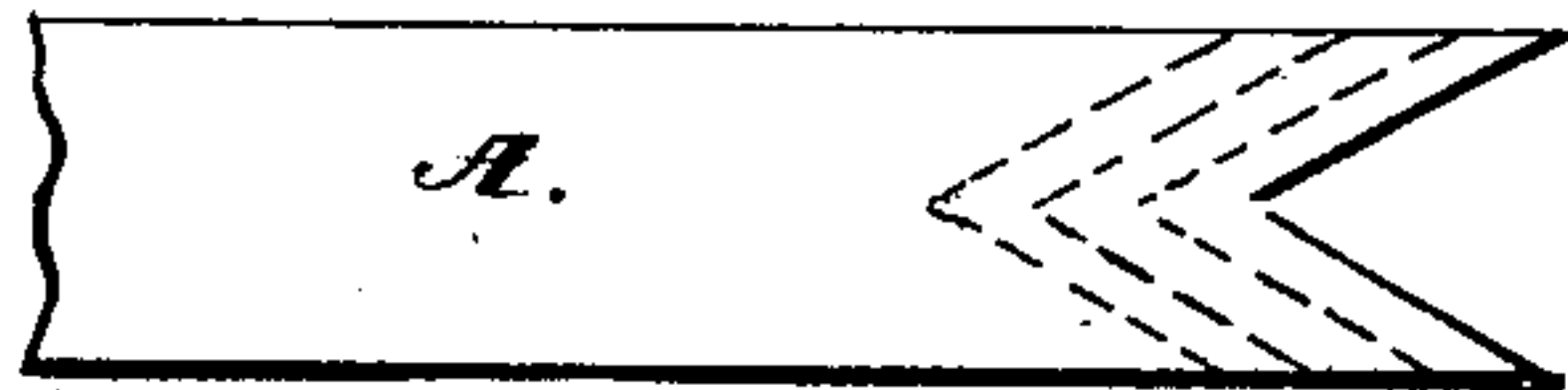


Fig. 2.



Fig. 3.

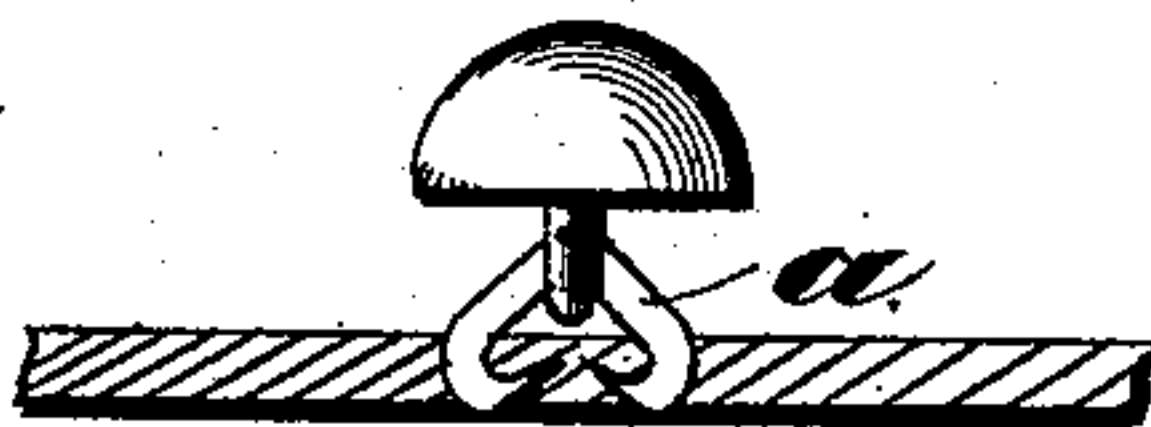


Fig. 4.



Fig. 5.

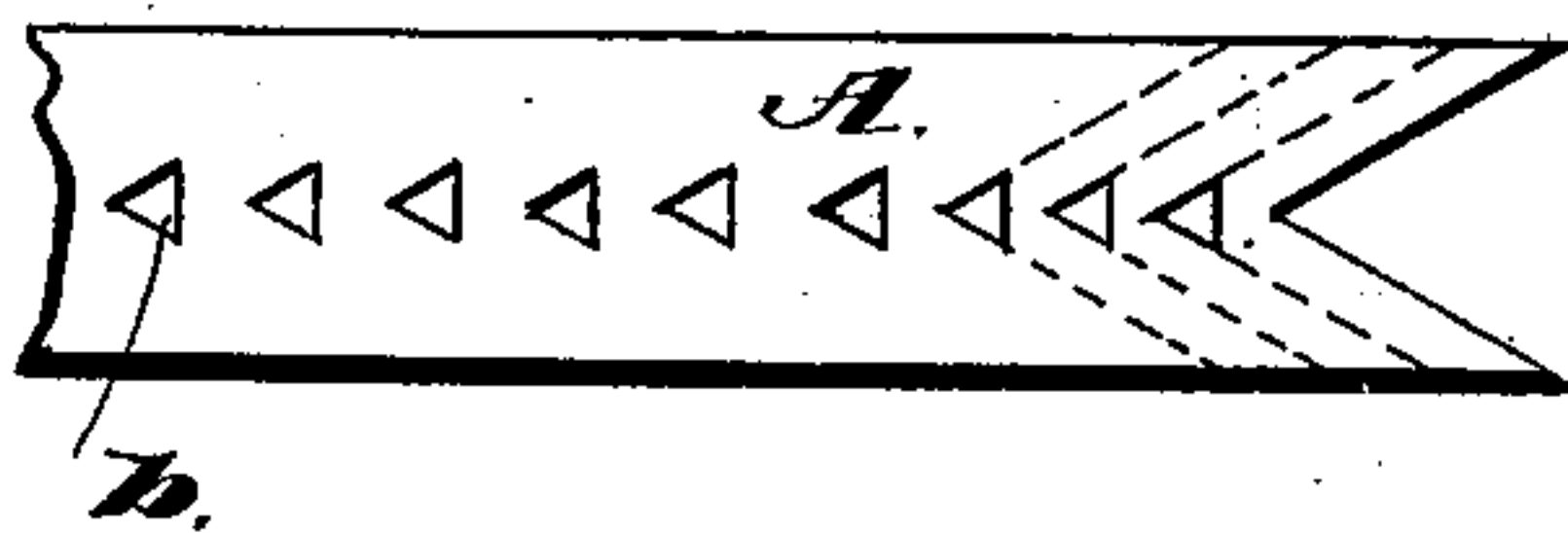
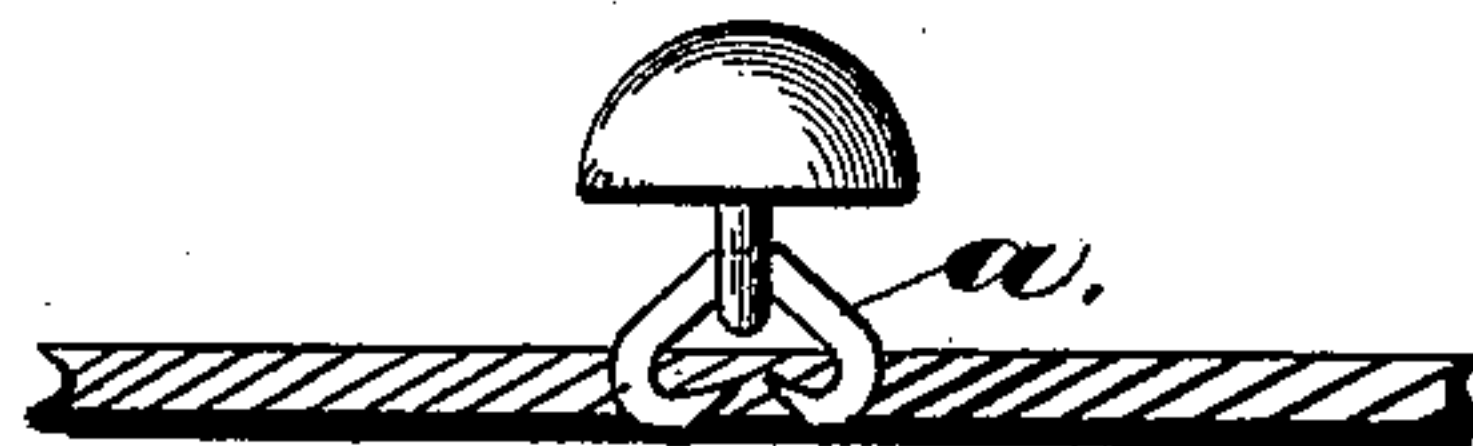


Fig. 6.



Fig. 7.



Witnesses:

Geo. H. Pentice
E. Fisher.

Inventor:

James F. Thayer

UNITED STATES PATENT OFFICE.

JAMES F. THAYER, OF PROVIDENCE, RHODE ISLAND.

BUTTON-FASTENER.

SPECIFICATION forming part of Letters Patent No. 332,967, dated December 22, 1885.

Application filed June 8, 1885. Serial No. 167,938. (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-Fasteners; and I do hereby 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 letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to an inverted-V-shaped staple cut from sheet metal, to be used as a button-fastener, and I will now proceed to describe the same and the best ways known to me of constructing it and the mode of attaching a button therewith, reference being had to the accompanying drawings, in which—

Figure 1 is a view of the blank, illustrating in broken lines the manner in which the staple is cut therefrom. Fig. 2 is a staple. Fig. 3 shows a button attached to a piece of fabric by my invention with the points upset inwardly. Fig. 4 is a staple with a concave crown or head. Fig. 5 is a blank showing sections removed at intervals before the staple is cut so as to produce a flat crown or head. Fig. 6 is a flat-headed staple, and Fig. 7 shows this latter form of staple-fastener applied.

In the drawings, A represents the blank from which the fasteners are cut; and it consists of a flat strip of sheet metal of the proper thickness and of the width it is designed that the staples shall be when cut. *a* are the staples. They are substantially the shape of an inverted V, or consisting of two pointed legs or prongs intersecting each other at an angle less than a right angle, the intersecting point forming the apex or crown of the staple.

It will be observed that each cut produces a complete and finished fastener, for as the legs are cut at an angle to the parallel sides of the blank the said sides form the beveled or sharpened points, so that, as before stated, a finished fastener is obtained at each reciprocation of the cutting-die. It is also apparent that after the first cut to give proper shape to the end of the blank the fasteners are formed without waste of material, as they are cut consecu-

tively and immediately adjacent to each other until the material of the blank is exhausted, since the same cut that forms the outside of one fastening also forms the inside of the next one. The fasteners are also formed in this manner without bending, which injures the structure of the metal of which they are formed.

I do not limit myself to a staple-fastener with a pyramidal or acute-angular head or crown. As a matter of fact, I prefer to remove a small section of the head, as the operation of setting is somewhat facilitated thereby. A small section may be removed, so as to leave a short flat crown, as shown in Fig. 6, or it may be concave, as shown in Fig. 4, or it might be made convex; but whatever the form of the crown the legs or prongs are always at an angle to each other, instead of parallel.

The top portion may be removed in any suitable manner after the staples are cut; or small sections, according to the form of fastener to be produced, may be removed from the blank at intervals, as shown at *b*, Fig. 5, of the drawings, before the operation of cutting the staple is begun.

In setting a button with my staple-fastener one of the legs of the staple is inserted through the button-eye, and the prongs or legs are upset, either inwardly or outwardly, on the under side of the material by a setting-instrument having dies corresponding in shape to the form of staple to be used.

One of the prongs or legs might be made shorter than the other, if desired, and I consider such feature within the scope of my invention.

I do not in this application claim the mode of cutting staple-fasteners from a blank having small sections removed therefrom at intervals to form the crown, and afterward cutting the staples consecutively or simultaneously from such perforated blank, as I have made such method the subject of a separate application filed contemporaneously herewith.

By my invention I have produced a staple-fastener that is very rapidly and economically made, that is formed without bending, or in the normal condition of the metal from which it is formed, and one that is readily applied and very efficient in use.

It will also be noted that by this form of fast-

ener, having the divergent bevel-pointed legs or prongs, a much greater quantity of leather is inclosed between said legs when first forced through the leather and before being clinched 5 than with the ordinary form of fastener having substantially parallel legs, which amount of leather inclosed by said prongs is compressed or bunched as the prongs are clinched, whereby the fastener when retaining a button 10 to fabric has a firmer hold on the leather, and there is much less liability of its being pulled therefrom by tearing of the leather through undue strain, as will be readily understood. Further, the bunching of the leather as com- 15 pressed between the prongs to resume its normal condition serves to hold or bind the fastener as against looseness induced by wear or enlargement of the punctures in the said leather by constant use or strain on the fast- 20 ener.

So far as my knowledge extends, I am the first to provide a button-fastener wherein the legs inclose an abnormally large amount of the

material to which it is secured, which when the legs are clinched or brought together on 25 the under side of the material is bunched or compressed to obtain greater holding power or resistance against strain.

Having thus fully described my improvement, what I claim as new, and desire to se- 30 cure by Letters Patent, is—

A staple button-fastener of substantially inverted-V form, having two legs or prongs at less than a right angle to each other, and hav- 35 ing a section of its crown or head removed, said fastener being cut from a blank without bending—that is to say, having the metal comprising the fastener in the same condition as it existed in the blank from which it is formed— 40 substantially as set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

JAMES F. THAYER.

Witnesses:

GEO. W. PRENTICE,
E. FISHER.