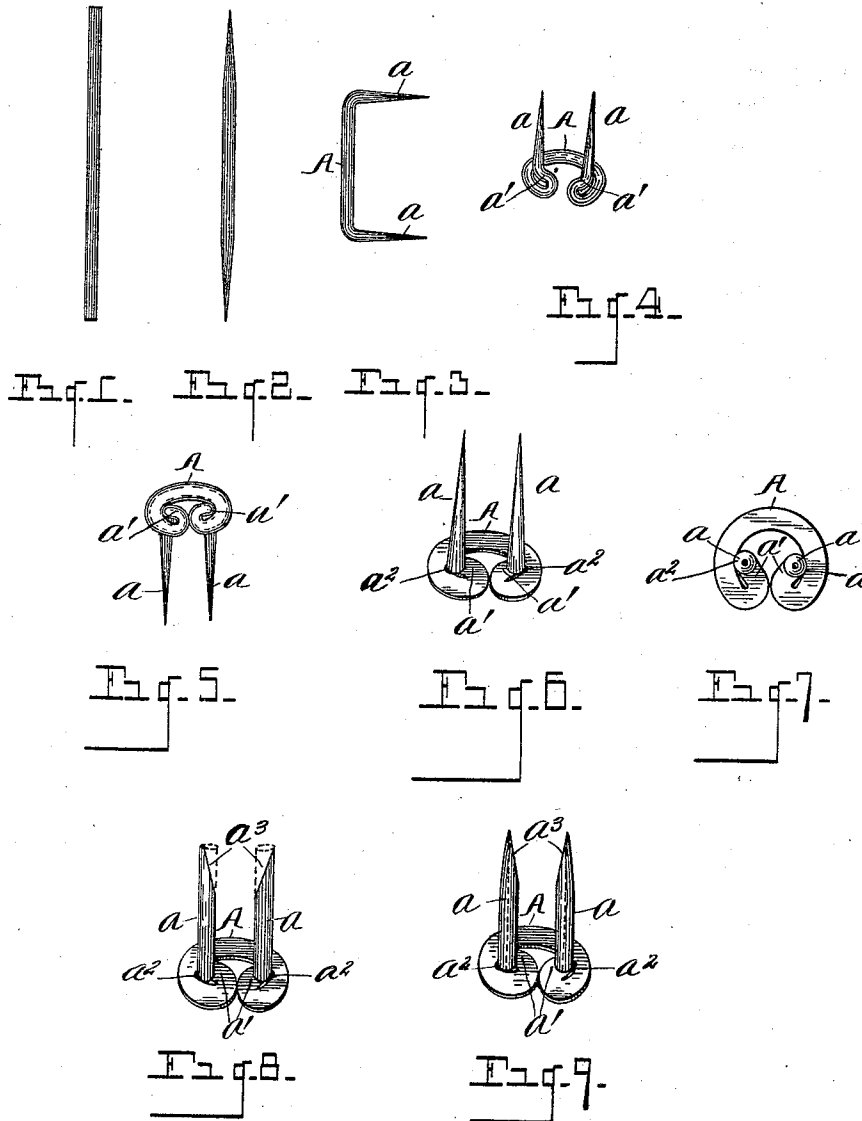


(No Model.)

F. S. McKENNEY.  
FASTENING FOR BUTTONS OR OTHER USES.

No. 565,388.

Patented Aug. 4, 1896.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## FASTENING FOR BUTTONS OR OTHER USES.

SPECIFICATION forming part of Letters Patent No. 565,388, dated August 4, 1896.

Application filed December 9, 1895. Serial No. 571,555. (No model.)

*To all whom it may concern:*

Be it known that I, FRANKLIN S. MCKENNEY, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Fastenings for Buttons and other Uses; and I 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, which form a part of this specification.

My invention relates to an improved fastening for a variety of uses, as for fastening buttons, for example, upon various articles, although I do not limit my invention solely to a button-fastener, as I contemplate any and all uses to which the device may be found adapted as coming within the scope of my invention.

To these ends my invention consists in the construction hereinafter specified and claimed, and illustrated in the drawings, in which—

Figure 1 shows a piece of wire from which my improved fastening is made. Fig. 2 shows the wire at the next step in the process of construction, the wire having been pointed at both ends. Fig. 3 shows the next step, wherein the ends of the wire have been bent to form attaching-prongs. Fig. 4 shows the body of the wire intermediate the prongs bent in the process of forming the head of the fastening. Fig. 5 is a view in perspective, showing the head laterally compressed more compactly together. Fig. 6 is a view in perspective, showing the under side of the head swaged to form a flat seating-flange about the base of the prongs. Fig. 7 is a plan view, looking toward the prongs, of the fastening. Figs. 8 and 9 illustrate modifications in certain features of the invention.

The aim of my invention is to provide a fastening of superior utility and which shall yet be of simple and economical construction.

I carry out my invention as follows: The fastening is made of a single integral piece of wire (indicated in Fig. 1) cut from a coil of wire of suitable length in the process of construction, which integral piece is next

pointed at both ends, as indicated in Fig. 2, to form the points of the attaching-prongs of the completed device. The wire is then bent toward each end, essentially at right angles to the main portion A of the piece of wire, as indicated in Fig. 3, to form attaching-prongs *a a*. The main portion of the wire intermediate the bases of the prongs is then curved in the process of forming the head of the fastening, the main body of the wire intermediate the prongs being bent into arc or crescent shape, as shown in Fig. 4, while the portions of the body *a' a'* adjacent to the bases of the prongs are also bent one toward the other and inward within the crescent outline of the main portion of the body of the wire, said portions of the wire adjacent to the base of the prongs being also diverged after being bent inward within the arc-shaped outline of the head, the base of the prongs being thereby spread apart in opposite directions within the main portion of the head toward or in contact with the adjacent edges of the body A of the wire or head, as shown.

At the next step of the process, as indicated in Fig. 5, a lateral compression is applied to set the inwardly-projecting portions of the head closely together, making the head more compact and firm and closing up the passage-way between the parts *a' a'*, (indicated in Fig. 4,) setting the inwardly-projecting portions of the head snugly in contact with each other. The under face of the body A of the head, together with the portions *a' a'* thereof, are then swaged to form a flat seating-flange, whereby the head of the fastening may be seated snugly against the article to which the fastening is applied, at the same time giving to the head a larger surface of contact against the article to which the fastening is applied and reducing the thickness of the head, so that it shall not be bunched. It will be observed that a marginal seating-flange is thus formed entirely around the base of the prongs. The divergence of the bases of the prongs is a very important feature, in order that as much of the leather, cloth, or other material to which the fastening is applied may be included between the bases of the prongs to insure firmness and strength in the union of the fastening thereto, to effectually

resist any strain upon the head and prevent the tearing out of the said material. I prefer also, in the operation of swaging the head, to indent the base of the prongs slightly thereinto at the adjacent edge of the head, as shown at  $a^2 a^2$ , whereby greater rigidity and firmness is given to the structure. This construction gives such strength to the head as to permit the convolution of the prongs in the act of setting them upon a button, the head efficiently holding the pressure.

While I have shown in Figs. 2 to 7 the attaching-prongs made tapering from the head toward the point, I do not limit myself to such a construction. In Fig. 8 I show the shanks beveled on the inner sides toward the points, as indicated at  $a^3$ . When the shanks are so constructed, the prongs are milled off toward their extremities after the head is formed, compressed, and swaged, the extremities of the wire being left unpointed until this stage in the process of construction. To make the points set, however, in proper manner about the attaching portion of the button, the extremities of the shanks are then set inward, so that the extreme points shall be in line with the vertical center of the shanks, said vertical line being indicated in dotted lines, Fig. 9. My invention, however, contemplates either the pin-points indicated in Figs. 2 to 7 or the points of the shanks as indicated in Figs. 8 and 9.

The object of setting the points inward, as above described, is to bring the points in the same position relative to the base as where the prongs are made pin-pointed, and so that in applying the fastening the pressure of the setting-die will come centrally of the base.

What I claim as my invention is—

1. A fastening constructed of a single integral piece of wire, the main portion A of which is formed into a substantially crescent-shaped outline, and having portions  $a'$ ,  $a'$ , bent toward each other and inward into the concavity of the crescent outline of the head, alongside each other on the same plane, and diverging toward the adjacent portions of the head, the ends of the wire being bent at substantially right angles to said diverging portions to form attaching-prongs, for the purpose set forth.

2. A fastening constructed of a single integral piece of wire, the body of which is formed into a substantially crescent-shaped head, and having the ends of the wire bent to form attaching-prongs, portions  $a'$ ,  $a'$  of said head adjacent to the bases of the prongs

being curved toward each other and inwardly into the crescent outline of the head the one alongside and on the same plane with the other, and diverging within the crescent outline of the head to spread the bases of the prongs, the head forming a marginal seating-flange round about the bases of the prongs, for the purpose set forth.

3. A fastening constructed of a single integral piece of wire, the body of which is formed into a substantially crescent-shaped head, and having the ends of the wire bent to form attaching-prongs, portions  $a'$ ,  $a'$  of said head adjacent to the bases of the prongs being curved toward each other and inwardly into the crescent outline of the head the one alongside and on the same plane with the other, and diverging within the crescent outline of the head to spread the bases of the prongs, the head forming a marginal seating-flange round about the bases of the prongs, the surface of the head being swaged to form a flat seating-flange, for the purpose set forth.

4. A fastening constructed of a single integral piece of wire, the body of which is formed into a substantially crescent-shaped head, and having the ends of the wire bent to form attaching-prongs, portions  $a'$ ,  $a'$  of the head adjacent to the bases of the prongs being curved toward each other and inwardly into the crescent outline of the head the one alongside and on the same plane with the other, and diverging within the crescent outline of the head to spread the bases of the prongs, the head adjacent to the prongs forming a marginal seating-flange round about the bases of the prongs, the surface of the head toward the prongs being swaged to form a flat seating-flange, and the base of the prongs being indented into the adjacent edges of the head, substantially as set forth.

5. A fastening formed of a single integral piece of wire bent intermediate the ends to form a head of crescent-shaped outline, and attaching-prongs, said head formed with portions  $a'$ ,  $a'$  bent toward one another and inwardly within the crescent-shaped outline and divergently therewithin, said prongs beveled on their inner faces toward their extremities and having their points set inward, substantially as set forth.

In testimony whereof I sign this specification in the presence of two witnesses.

FRANKLIN S. MCKENNEY.

Witnesses:

N. S. WRIGHT,  
M. A. MARTIN.