(No Model.)

F. A. SMITH, Jr.

BUTTON FASTENER.

No. 294,517. Patented Mar. 4, 1884.

Fig. 1.

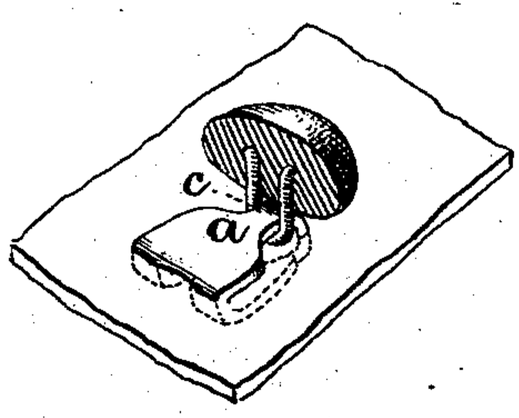
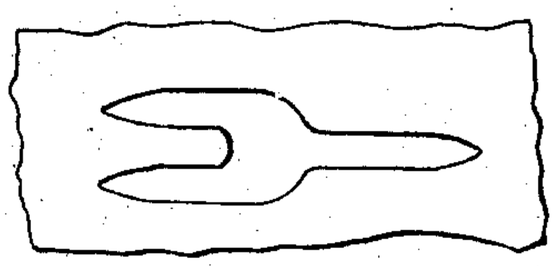


Fig. 2.

Fig. 3.



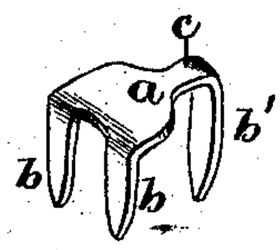
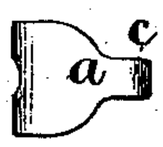


Fig. 4.



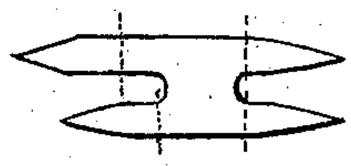


Fig. 5.

Witnesses.
John F. C. Printerk
Harry St. Small

Inventor:
Franklin A. Smith, Jr.
by Crosby & Gregory. Attys.

UNITED STATES PATENT OFFICE.

FRANKLIN A. SMITH, JR., OF PROVIDENCE, RHODE ISLAND.

BUTTON-FASTENER.

SPECIFICATION forming part of Letters Patent No. 294,517, dated March 4, 1884.

Application filed January 16, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN A. SMITH, Jr., a citizen of the United States, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented an Improvement in Button-Fasteners, of which the following description, in connection with the accompanying drawings, is a specification—like letters on the drawings representing like parts.

This invention relates to button-fasteners, preferably to that class known as "prong-fasteners," which consist, usually, of a plate or table and several prongs integral therewith, the said fasteners being adapted to carry a button and be secured to a shoe or other article by means of the prongs, which are caused to penetrate and be clinched to the material to secure the button.

In button-fasteners of the class mentioned the button is carried by one of the prongs, (usually designated the "button-prong,") which is inserted into the shank-eye of the button, so that the shank encircles the button-prong near its heel, and said button-prong has heretofore been swaged or partially bent upon itself, to form a partial loop or staple at its heel, to provide space between the prong and material to which the fastener is secured, to permit free movement of the button-shank between said parts. In such fasteners, when in use, the strain is mostly exerted upon the button-prong, which, by reason of the bend given thereto to form the staple, is the weakest portion of the fastener. The sharp bend imparted to the button-prong tends to strain or injure the metal thereof at its heel, and it is not uncommon for the fasteners to break at that point, thus rendering them useless, and, because of the prongs having been clinched to the leather or other material, making it a difficult task to remove such useless parts and substitute a new fastener therefor. Further, not only does the staple so formed tend to cut and fray the stitching or edge of the material at the button-holes in the shoe or other article, but more metal is required than otherwise, and the cost of manufacture is materially increased.

My invention has for its objects to obviate the defects herein mentioned and hold the button more closely to the fabric, and to provide a button-fastener which shall present to view at the outer surface of the material a smooth flat or imperforate table or plate.

To these ends my invention consists, primarily, of a button-fastener having substantially a plate or table with one or more prongs or holding-arms at opposite sides of said table, and bent at or about at right angles thereto, with one of said prongs having an unbent portion contiguous to and in the horizontal plane of the table, and adapted to hold a shank-button, substantially as hereinafter described, and particularly pointed out in the claim.

Figure 1 shows in perspective a button held to a piece of leather or other material by my improved button-fastener. Fig. 2 is a plan of a piece of sheet metal from which a button-fastener blank has been cut. Fig. 3 is a perspective view of my improved button-fastener. Fig. 4 is a plan of the same, and Fig. 5 shows a modification of my fastener.

In the present instance my improved button-fastener consists of the table *a* and the prongs *b*, projecting from one side, and the button-carrying prong *b'*, projecting from the other side thereof, the whole formed from a blank cut, as shown in Fig. 2, from sheet metal, the prongs of said blank being bent at right angles to the table *a*, as shown. The button-prong is bent at a point sufficiently distant from its heel or junction with the table *a* to leave an unbent strip or portion, *c*, of said prong disposed in the same plane as the table, which unbent strip or portion *c* is encircled by the shank of a button, which is passed thereon before the button is secured to the material by the penetration and clinching of the prongs to said material, as clearly shown in Fig. 1. Thus it will be noticed that the shank of the button encircles the button-prong between the bend therein and the table *a*, and but one bend is given to all the prongs by one blow of the die or former. The yielding quality of the material to which the button is secured permits the fastener to be firmly secured thereto, notwithstanding the wire shank is interposed between the material and the under side of the fastener, and it also permits sufficient movement of the button, which movement is very slight. The button is brought

closer to the fabric and is held more firmly in position, and has not that lax movement and play incident to fasteners having a partial loop or staple formed near the heel of the button-prong. A smooth flat or imperforate table is presented to view, which will not cut or fray the stitching or edge of the material at the button-hole.

Fig. 5 shows a modification of my fastener, the dotted lines indicating the points of bend of the several prongs, and the longest prong adapted to carry a shank-button.

What I claim is—

A sheet-metal button-fastener consisting of a table, with a prong or prongs at opposite sides of the table and integral therewith, and bent at or about at right angles thereto, with one of said prongs having an unbent portion contiguous to the table and in the same horizontal plane, and adapted to carry a shank-button, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANKLIN A. SMITH, JR.

Witnesses:

GEO. W. PRENTICE,

CHARLES GREENE.