(No Model.)

E. KEMPSHALL.

BUTTON FASTENER.

No. 314,684. Patented Mar. 31, 1885.

Fig. 1.

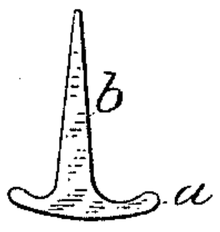


Fig. 2.

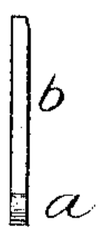


Fig. 3.

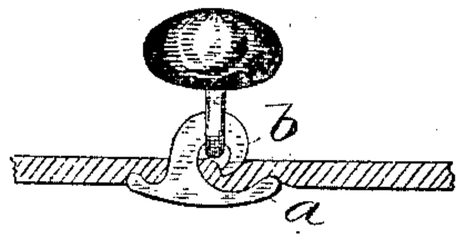


Fig. 4.

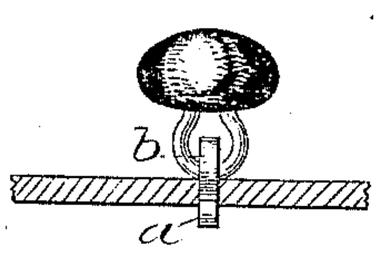
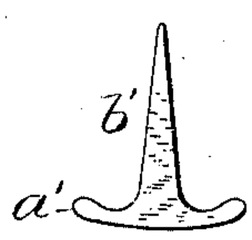


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

ELEAZER KEMPSHALL, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE AMERICAN BUTTON FASTENER COMPANY, OF SAME PLACE.

BUTTON-FASTENER.

SPECIFICATION forming part of Letters Patent No. 314,684, dated March 31, 1885.

Application filed December 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, ELEAZER KEMPSHALL, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Button-Fasteners, of which the following is a specification.

My invention relates to improvements in sheet-metal button-fasteners of a form which is adapted for sale before being bent; and the object of my invention is to produce a sheet-metal button-fastener which is strong and durable, comfortable to the wearer, and inexpensive to make. I attain this object by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my fastener as prepared ready for the market. Fig. 2 is an edge view thereof. Fig. 3 is a side view of the same with a button attached and a piece of leather or other material. Fig. 4 is an edge view of the same; and Fig. 5 is another side view of my button-fastener ready for market, and differing slightly in form from the fasteners shown in the preceding figures.

All of the figures are on an enlarged scale.

My button-fastener is intended to be sold to shoe-dealers and others in its unbent form, and to be bent by means of proper tools, special or otherwise, when it is desired to fasten the buttons to the article on which they are to be used. In practice the prong will enter the leather while it is in the same plane with the base, and be subsequently clinched or bent. I form my fastener substantially in a T-shaped form by cutting it from sheet metal, with suitable dies, as a finished article. The cross-bar of the T forms the head-bar or base *a* of the fastener, and the upright portion of the T forms the fastening prong or hook *b*. The style represented in Figs. 1 to 4, inclusive, is particularly adapted to have its fastening prong or hook bent edgewise with the metal, as shown in Figs. 3 and 4, and for this reason the fastening-prong *b* is made to project from the head-bar *a* at a point a little to one side of the middle of the length of said head-bar, so that when the prong *b* is bent into a hook or eye it will bring the button-eye so that it will stand at about the middle of the length of said head-bar, as shown in Fig. 3. The prong *b* is made either small enough or sharp enough so that it will readily puncture the leather or other material to which the button is to be applied. The head-bar *a* is made quite narrow, as shown, and with its ends rounded. Its inner edge is especially adapted for a bearing-surface, and with this object in view I curve the ends thereof so as to project upon the inside or bearing-edge. I have described these ends as rounded, although they have what may be termed "inwardly-projecting points." Whenever the head-bar has anything in the nature of points or projections at or near the ends of said bars, they must be so disposed with reference to the bearing-edge as to either lie close to the material to which the fastener is applied, or else be embedded therein, as shown in Fig. 3.

In applying the fastener the prong *b* only will be bent, and the unbent head-bar will rest edgewise, with its inside edge embedded in the inner surface of the material to which the button and fastener are applied. This fastener is intended to be applied by means of a special tool similar in its general construction to those now in use.

The fastener is inserted with the tool applied at the proper point, and the handles of the tool forced together sufficiently to force the prong *b* through the material. The button-eye can then be slipped over the prong, and the operation of the tool continued to force the end of the prong into a proper die and bend it edgewise to form a hook or eye to secure the button, as shown in Figs. 3 and 4. In some cases it may be desirable to bend the prong sidewise instead of edgewise. Fig. 5 represents a fastener specially adapted to be so bent, and in which figure *b'* designates the prong for the fastening-hook, and *a'* the head-bar. This prong I prefer to make as projecting from the middle of the head-bar, as shown in Fig. 5. It may be applied by means of a special tool, substantially such as before mentioned, except that it bends the prong to one side.

In both of the forms herein represented the head-bar and prong are integral and in one plane. They are also adapted to puncture and enter the material while they are thus in one plane, and have the prong subsequently bent.

After application the head-bar has its inner edge resting against the material to which the fastener is applied, giving the fastener superior strength in proportion to the amount of metal required. The head-bar also embeds itself in the material and prevents it from turning around, and, as said bar is only a narrow ridge, it projects inward but slightly, while the points or projections near the ends of the head-bar can never stand out from the inner surface of the fabric, and the fasteners thus applied can never come into unpleasant contact with the wearer or catch upon his clothing.

The single claim in this application is intended as a generic one to cover both of the forms herein described, while the case is divided by filing a new application with a specific and narrower claim for the particular form of the fastener whose prong is a little to one side of the middle of the head, and herein described as intended to be bent edgewise, the same being illustrated in Figs. 1 to 4, inclusive.

I am aware that prior patents show various button-fasteners made of sheet metal, and one of them shows a T-shaped blank having its three ends sharpened. Such fasteners are hereby disclaimed. In all prior sheet-metal fasteners having a puncturing-prong cut by dies from a single piece of metal, so far as I know, the head or head-bar has always been adapted to lie with its flat side against the inner surface of the material to which the fastener is applied.

In my fastener the head formed integral with the puncturing-prong has its cut edge instead of its flat side resting against the inner surface of the material to which it is applied.

I believe myself to be the first inventor of a sheet-metal button-fastener having a puncturing-prong and base, whose head is adapted to rest edgewise against the material to which the button is fastened. Fig. 4 of the drawings of my patent of July 1, 1884, No. 301,450, shows a blank for making one form of the button-fastener therein patented; but my present invention is of an earlier date, and was completed prior to the filing of the application for said patent, and also prior to making the invention which forms the subject-matter of said patent of July 1, 1884.

I claim as my invention—

A sheet-metal button-fastener consisting of a narrow head or base having an edgewise bearing-surface, and an integral puncturing-prong projecting from said bearing-surface and in the same plane with the head or base, the whole being adapted to be struck from a sheet of metal in its finished form, substantially as described, and for the purposes specified.

ELEAZER KEMPSHALL.

Witnesses:
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