(No Model.)

E. KEMPSHALL.

BUTTON FASTENER.

No. 282,903. Patented Aug. 7, 1883.

Fig. 1.

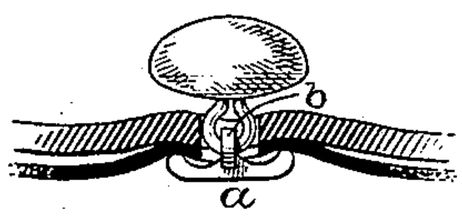


Fig. 2.

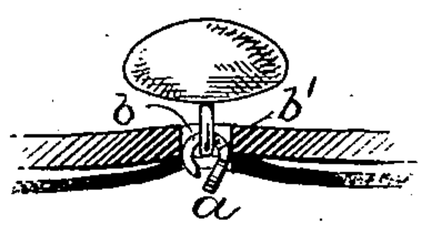


Fig. 3.

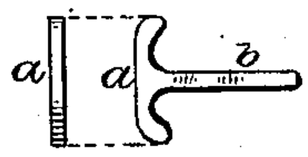
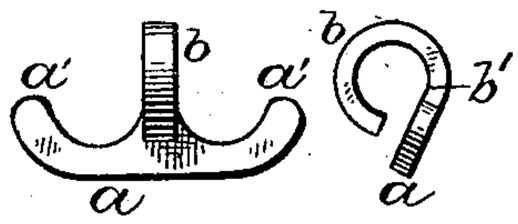


Fig. 4.



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UNITED STATES PATENT OFFICE.

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BUTTON-FASTENER.

SPECIFICATION forming part of Letters Patent No. 282,903, dated August 7, 1883.

Application filed May 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, ELEAZER KEMPSHALL, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Button-Fasteners; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description of my invention.

My improved button-fastener belongs to that class of metallic devices by which buttons can be firmly secured to shoes without the use of a setting-tool specially devised for that purpose.

The objects of my invention are to present at the inner surface of a shoe a minimum bulk of metal, to have such metal as is necessarily presented in such a form as will enable it when in use to be practically embedded in the lining of the shoe, so as to afford no abrasive points for contact with stocking or foot, and to provide for a strong reliable connection for the eye of the button, which can be wholly housed within an ordinary punctured hole, such as is usually necessary in button-fasteners of the class before referred to.

So far as my knowledge extends, I have for the first time so formed a sheet-metal button-fastener embodying an integral head-bar and a hook, arranged to engage with the eye of a button, that said hook involves only one bend in the metal. Many prior sheet-metal fasteners having disk-shaped heads have had integral tongues, first bent at right angles to the disk and then again bent upon themselves to form the hook, thus requiring either very thin or tender metal or a weakened place at the base of the hook incident to the short bend, and with such disk-heads at least two bends are requisite in forming the hook. My fastener in its blank form is cut from comparatively heavy sheet metal, and has a substantially straight head-bar and a hook-tongue normally at right angles thereto, so that a single bend in the latter locates the point of the hook near to and opposite one side of the head-bar, thus affording a desired rigid hook for engaging with the eye of a button, and this hook, being left sufficiently open to receive the button-eye, can, when applied to use, be readily closed, if desired, or it will serve a good purpose if left open.

To more particularly describe my invention I will refer to the accompanying drawings, in which Figures 1 and 2 represent opposite views of one of my fasteners and a button as applied for use. Fig. 3 is a top and edge view of the blank from which my fastener is formed. Fig. 4 is a side and edge view of my fastener on an enlarged scale.

The head-bar *a* and hook-tongue *b* are integral, and the blanks Fig. 4 are cut, by means of suitable dies, from sheet metal of such thickness and character as will afford a bar and hook of requisite strength. The head-bar *a* is practically straight on its two sides, but is rounded or convex from end to end on its outer or cut edge, and on its inner edge it is provided at each end with a projecting point, *a'*, between which and the tongue the bar on its under side is slightly concave. I am aware that similar points have heretofore been employed on head-disks in connection with puncturing-pins passing through said disks for subsequent clinching with the eye of a button. When the tongue is bent into hook form, as shown, with its point or tip adjacent to and opposite one side of the head-bar, it is left sufficiently open to receive the wire eye of a button, and whether said opening be closed or not it will be seen that the draft or pull on the button, as when using a button-hook, will be in a line at right angles to the head-bar, causing it to be practically embedded edgewise in the lining of the shoe, and especially at its ends, thus affording a smooth, even surface for contact with a stocking. The tongue has sufficient rigidity to prevent the opening outward of the hook under any strains incident to use, and it will be seen that the metal at the junction of the hook-tongue with the bar, as at *b'*, remains unchanged, and it is therefore not weakened, as in such prior fasteners as have a hook developed from a tongue cut from a disk and first bent at right angles to the disk before forming the hook.

It will be seen that the hook of the fastener is wholly housed within the hole in the leather or other material, and that the eye of the button can be located closely adjacent to the outer surface of a shoe. The points *a'* on the head-

bar serve to consolidate and to draw inward toward the hole that portion of the leather or cloth which lies between said points and the hook, thus rendering it practically impossible for the comparatively slender bar to be torn through the shoe.

It is obvious that economy in metal is of consequence, in view of the fact that only a superior article thereof should be used, and that it must be first rolled out at considerable cost; and it will be seen that my fasteners involve in the die-work for cutting out blanks a comparatively small amount of waste, and that although I am obliged to use heavier metal than usual, I am enabled to use stock so economically, having reference to its superficial area, that my fasteners can be manufactured at very low cost.

It is obvious that the blank Fig. 4 may be worked in heading-dies, if desired, for varying the lateral contour of the head-bar, without weakening the metal at the junction of the hook and bar.

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

1. A sheet-metal button-fastener having an integral head-bar and hook, the latter projecting from the edge of said bar, and having the metal at the junction of its shank with the bar in its normal or unbent condition, and having its point located adjacent to and opposite one side of said head-bar, substantially as described, whereby when in use said head-bar is embedded edgewise in the lining of a shoe and the full strength of the metal afforded at said junction, as set forth.

2. The metallic button-fastener consisting of the head-bar having at its ends the points *a'* and an open hook integral with said bar and projecting from its edge, and having its opening to receive the eye of a button closely adjacent to and opposite one side of said bar, substantially as described.

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Witnesses:
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