March 2, 1971 R. L. HOCKER 3,566,452

BUTTON HOLDER

Filed Dec. 2, 1968

FIG-1

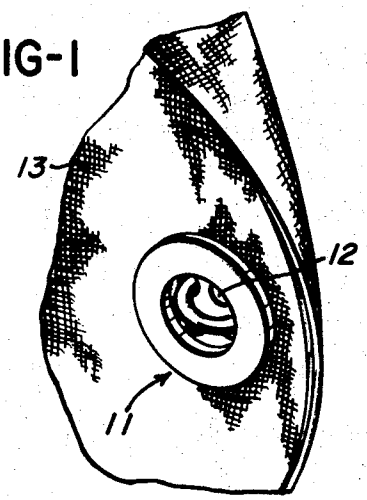


FIG-2

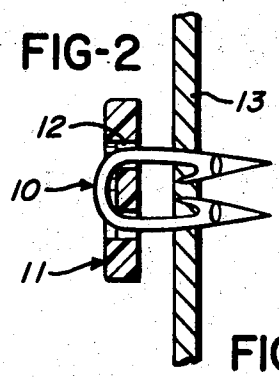


FIG-3

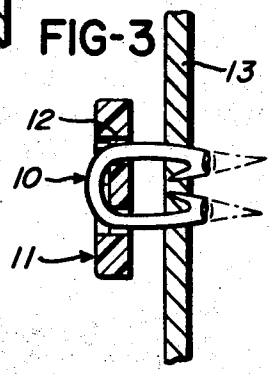


FIG-4

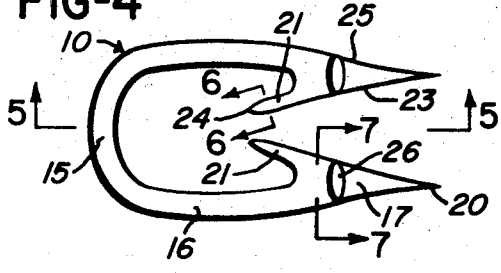


FIG-5

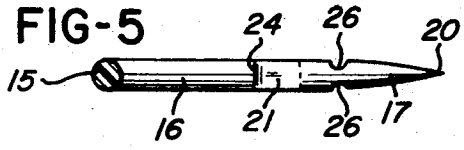


FIG-6

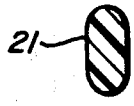


FIG-7

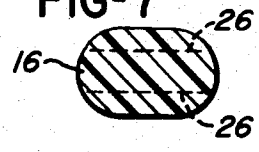


FIG-8

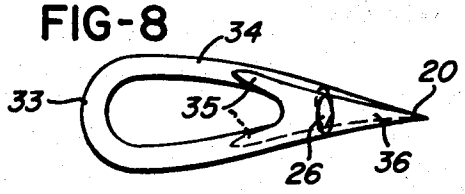


FIG-9

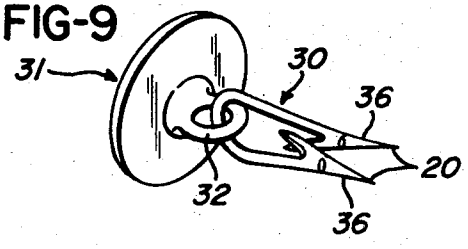
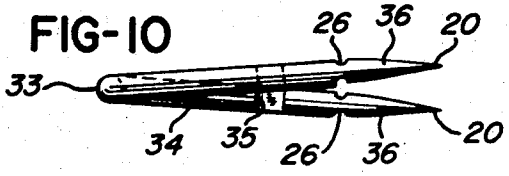


FIG-10



INVENTOR

ROBERT L. HOCKER

BY

Marechal, Biebel, French & Bugg

ATTORNEYS

United States Patent Office 3,566,452 Patented Mar. 2, 1971

3,566,452

BUTTON HOLDER

Robert L. Hocker, 1400 Devereux Drive, Dayton, Ohio 45419

Filed Dec. 2, 1968, Ser. No. 780,401
Int. Cl. A44b 1/18
U.S. Cl. 24—103 5 Claims

ABSTRACT OF THE DISCLOSURE

A U-shaped holder adapted to secure a button on a fabric material. Sharp points are provided on the ends of the U-shaped member to enable it to penetrate the fabric so that the holder replaces the threads which normally hold the button on the fabric. The pointed ends of the holder are notched so that the points can be removed once they penetrate the cloth, and hooks are provided adjacent the ends so that the holder cannot be withdrawn from the fabric by normal use of the button.

BACKGROUND OF THE INVENTION

Bachelors and many other people frequently have need to secure quickly in place a button which has become detached. The customary means for doing this is to use a conventional needle and thread to sew the button back onto the fabric in substantially the same manner as it was held in place originally. This is time consuming and frequently the necessary needle and/or thread are not available.

SUMMARY OF THE INVENTION

A button holder made of a semi-flexible material adapted to be inserted through the button and the fabric to secure the button in place. The holder has pointed ends which pass through the fabric, and these ends are adapted to be removed and discarded after the button is secured in place. Hook means are provided on the ends of the holder for prohibiting the withdrawal of the holder from the fabric.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective illustration of a button being held on a garment by the invention;

FIG. 2 is a sectional view taken centrally through the button and showing the button holder in accordance with the invention;

FIG. 3 is a sectional view similar to FIG. 2 but showing the ends of the button holder removed;

FIG. 4 is an enlarged plan view of the button holder;

FIG. 5 is a sectional view taken along the line 5—5 of FIG. 4;

FIG. 6 is a sectional view taken along the line 6—6 of FIG. 4;

FIG. 7 is another sectional view taken along the line 7—7 of FIG. 4;

FIG. 8 is a plan view of a modified form of the invention;

FIG. 9 is a perspective view showing the manner in which the modified form of the invention is secured to a button; and

FIG. 10 is a side elevation of the embodiment shown in FIGS. 9 and 10.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIGS. 1–3, the button holder **10** is shown interconnecting the round button **11** having at least two axially extending openings **12** therein to the cloth fabric **13** which may be of natural or synthetic fibers, or other materials which are capable of being penetrated by a sharp object. Basically, it is felt that the holder **10** can be utilized to secure the button **10** to any fabric or material that a needle and thread has heretofore been used to secure the button in place.

The holder **10** is made of plastic or other flexible material and includes the loop or end portion **15** having a circular cross section (FIG. 5) and integral arms **16** extending in a generally parallel manner from the opposite ends of the loop portion **15**. These arms are also circular in cross section and extend to integral connections with the pointed end portions **17** which have a generally oval cross section, as shown in FIG. 6, and which have sharply pointed ends **20**. In the normal unflexed position, these pointed ends **20** extend parallel to one another for ease in penetrating the fabric.

Formed in the area of the juncture between the arms **16** and the end portions **17** are the rearwardly extending hooks **21** formed integrally with the remainder of the holder **10** and having a rectangular cross section, as shown in FIG. 6. Each of the hooks **21** cooperate with the end portions **17** to provide a tapered side wall **23** extending from the pointed end **20** to the end **24** of the hook **21** on one side thereof, and a smooth surface **25** on the other side thereof extending from the pointed end **20** to the juncture between the arm **16** and end portion **17**. The cross section of the hooks **21** gradually tapers in transition between the oval cross section of the end portion **17** and the oval cross section (FIG. 6) hook **21**.

An indentation **26** is provided centrally in each side of each end portion **17** in the area of its juncture with the hooks **21**. These indentations **26** extend a substantial distance into the end portion **17**, as shown in FIG. 5, and across the entire width thereof to provide a weakened area where the pointed ends **20** can be removed by bending the same up and down causing the material to weaken and break off, or by cutting the points **20** off at the indentations **26** with a household scissors, a razor blade, or other sharp cutting devices.

In operation of the invention, when it is desired to secure the button **11** to the fabric **13**, it is merely necessary to remove one of the holders **10** from a suitable package and force the pointed ends **20** through two of the openings **12** of the button **11**, as shown in FIG. 1. The button **11** with the holder **10** in place is then aligned with the desired location on the fabric **13**, and then the pointed ends **20** are forced through the fabric **13**. Since the tapered sides **23** and **25** are provided, the fabric **13** is separated allowing the entire end portions **17** and hooks **21** to pass through the material at which time the button is substantially permanently secured in position.

When the button **11** is pulled away from the fabric **13**, it merely seats the hooks **21** into the fabric **13** and prohibits further withdrawal of the holder **10** therefrom. The ends **20** are then removed from the holder **10** by breaking them off manually or by cutting them off with a suitable tool. Should it ever be desired to remove the button **11**, this can be accomplished by merely cutting the arms **16** of the holder **10** with a suitable tool to cause removal thereof.

A modified embodiment of the invention is shown in FIGS. 8–10 wherein a holder **30** is provided for a button **31** having a loop **32** on the back side thereof, as shown in FIG. 9. This holder also includes a loop portion **33**, the arms **34**, and hooks **35** on the end portion **36** is substantially the same manner as those described above. However, the arms **34** and end portions **36** are not parallel in the unflexed portion but disposed one above the other, as shown best in FIG. 10. This arrangement permits the arms **34** to be spaced closer together without interference between the hooks **35** on each of the arms **34** so that the loop defined by the arms **34** and the loop portion **33**

is small and cannot be seen from the front of the button **31** when it is secured in place on a piece of fabric. The manner in which the button is secured to the fabric is substantially identical to that described above except that the hooks **35** are disposed one above the other when the holder **30** is secured to the fabric, rather than side by side as shown in FIG. 3.

Accordingly, the invention has provided a button holder which can be quickly and easily used to secure a conventional button to a fabric material. No needle and thread or tools whatsoever are provided other than a sharp object to remove the pointed ends **20**. Once the button is in place it is substantially impossible to remove and will withstand pulling force on the button itself. Should this pulling force exceed a preset factor, the button holder would tear the fabric rather than break itself. The button holder can be made of any flexible material including plastics, metals, and hard rubbers.

While the forms of apparatus herein described constitute preferred embodiments of the invention, it is to be understood that the invention is not limited to these precise forms of apparatus, and that changes may be made therein without departing from the scope of the invention.

What is claimed is:

1. An improved button holder adapted to secure a button to a fabric material, comprising a substantially rigid U-shaped plastic body including a loop portion and generally parallel spaced arm portions, each said arm portion including a forwardly projecting generally conical tapered end portion having a sharp pointed tip to facilitate extending said arm portions through the material, an elongated integral tapered projection extending rearwardly from each said end portion and cooperating with the adjacent said arm portion to form a U-shaped hook

portion facing said loop portion for piercing the material after the arm portions are extended through the material, and each said projection being spring-like to permit flexing of said projection in response to inserting said end portions through corresponding holes in the bottom.

2. A button holder as defined in claim **1** wherein said projections converge inwardly between said arm portions.

3. A button holder as defined in claim **1** wherein said pointed tip and said hook portions are positioned in overlapping adjacent relation.

4. A button holder as defined in claim **1** including means defining a weakened area for separating each said pointed tip from the corresponding said hook portion after said pointed tips are extended through the material and said hook portions engage the material.

5. A button holder as defined in claim **1** wherein said means defining a weakened area, comprise indentations located between said pointed tips and said hook portions.

References Cited

UNITED STATES PATENTS

1,156,231	10/1915	Holter	24—90
1,982,540	11/1934	Reich	24—103
2,104,885	1/1938	Robbins	24—90
2,219,966	10/1940	Smitt	24—103
2,228,043	1/1941	Baggerud	24—90
2,597,051	5/1952	Auer	24—103
3,349,447	10/1967	Raleigh, Jr.	24—90
3,382,546	5/1968	Palmay et al.	24—90

STANLEY N. GILREATH, Primary Examiner

W. H. SCHROEDER, Assistant Examiner