

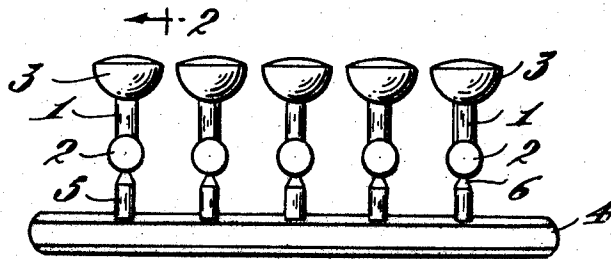
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A. R. BONE

3,494,004

ATTACHMENT FOR BUTTONS, ETC.

Filed March 28, 1968



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Fig. 1

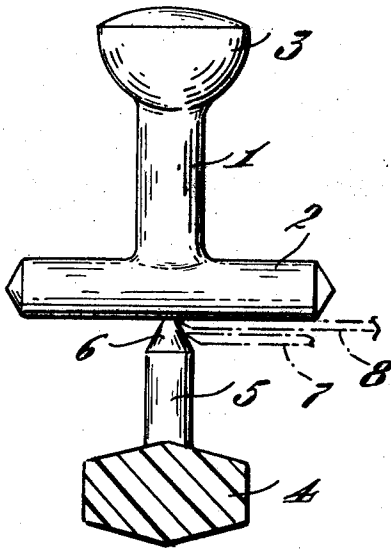


Fig. 2

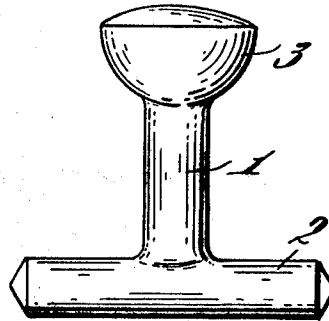


Fig. 3

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3,494,004

ATTACHMENT FOR BUTTONS, ETC.

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4 Claims

ABSTRACT OF THE DISCLOSURE

Fasteners for attaching buttons, each fastener comprising a shank with a head on each end, the fasteners being interconnected in a row by a stringer connected to the heads on one end of the shank by necks tapering to the heads to guide a cutoff knife toward the heads to cutoff the necks close to the heads.

This attachment is an improvement on the patent of Francis G. Merse, 3,399,432, granted Sept. 3, 1968, and is particularly intended for use for an attaching device such as disclosed in the application of Arnold R. Bone, Ser. No. 711,771, filed Mar. 8, 1968.

Objects of the invention are to provide a string of attachments in which each attachment may be separated from the string easily and without leaving a burr on the attachment.

This invention involves a group of fasteners comprising filaments, a head on one end of each filament, and a stringer interconnecting the fasteners, the stringer being joined to said heads by necks, characterized in that the necks taper toward the heads with their smallest cross-sections at the heads, whereby in cutting the necks to separate the fasteners from the stringer the cutter tends to slide along the tapered necks to the heads so that the severed heads are free from burrs. Preferably the parts are integral and comprise polyurethane, and the heads comprise bars extending transversely of both filaments and stringer.

For the purpose of illustration a typical embodiment of the invention is shown in the accompanying drawings in which

FIG. 1 is a side view of a group of fasteners;
FIG. 2 is a section on line 2—2 of FIG. 1; and
FIG. 3 is a similar view of a severed fastener.

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The particular embodiment of the invention chosen for the purpose of illustration comprises fasteners consisting of filaments 1, heads 2 and 3 on opposite ends of the filaments and a stringer 4 interconnecting the fasteners, the stringer being joined to the head 2 by necks 5 having portions 6 which taper toward the heads with their smallest cross-sections at the heads. Preferably the parts are molded integrally with polyurethane and the heads are shaped as described and claimed in the aforesaid application Patent 3,399,432, the heads 2 comprising bars extending transversely of both filaments and stringer.

In use the fasteners are severed from the stringer one by one with a knife as disclosed in the aforesaid application. To leave no burrs on the severed fasteners it is necessary to cut the necks at the bars and according to the present invention this is accomplished automatically by the tapered portions 6. As illustrated in FIG. 2, if the knife impinges on the neck at any position along the tapered portion, as for example at the position 7, it automatically slides to the position 8 against the bar 2.

I claim:

1. A group of fasteners comprising filaments, a head on one end of each filament, and a stringer interconnecting the fasteners, the stringer being joined to said heads by generally conical necks, characterized in that the necks taper toward the heads with their smallest cross-sections at the heads, whereby in cutting the necks to separate the fasteners from the stringer the cutter tends to slide along the tapered necks to the heads so that the severed heads are free from burrs.

2. The combination of claim 1 wherein the parts are integral.

3. The combination of claim 2 wherein the parts comprise polyurethane.

4. The combination of claim 1 wherein said heads comprise bars extending transversely of both filaments and stringer.

References Cited

UNITED STATES PATENTS

3,103,666 9/1963 Bone.
3,349,447 10/1967 Raleigh.

DONALD A. GRIFFIN, Primary Examiner

U.S. Cl. X.R.

206—56