

J. McLAUGHLIN & H. D. BEMAN.

WHIP BUTTON.

APPLICATION FILED MAY 27, 1907.

977,670.

Patented Dec. 6, 1910.

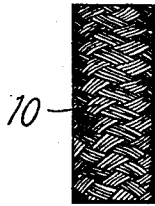


FIG. 1

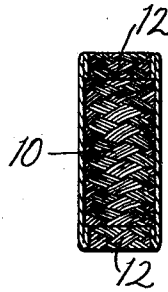


FIG. 2

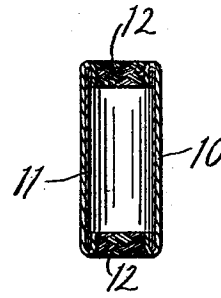


FIG. 3

WITNESSES

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# UNITED STATES PATENT OFFICE.

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WHIP-BUTTON.

977,670.

Specification of Letters Patent.

Patented Dec. 6, 1910.

Original application filed December 21, 1906, Serial No. 348,830. Divided and this application filed May 27, 1907. Serial No. 375,866.

*To all whom it may concern:*

Be it known that we, JOHN McLAUGHLIN and HERBERT D. BEMAN, both citizens of the United States of America, and residents of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Whip-Button, of which the following is a specification, the same being a divisional part of our application for United States Letters Patent filed December 21, 1906, and serially numbered 348,830.

Our invention relates to an improved independent whip trimming or button.

The object of our invention is to produce an independent trimming which shall be flexible, seamless, light and strong, and which will be inexpensive as compared with similar trimmings heretofore made, and which when in place on the whip shall have the general characteristics and appearance of a similar trimming braided directly upon the body of the whip as has been usual heretofore during the process of the manufacture of a whip.

We attain the objects of our invention by the construction herein shown.

In the accompanying drawings, in which like figures of reference indicate like parts, Figure 1 is a side view of our improved button; Fig. 2 is a longitudinal sectional view of the same, and Fig. 3 is a like view disclosing a thin flexible lining.

Our improved trimming comprises a thin, flexible, seamless tube formed of braided strands and having the end portions of the tube folded closely in against the flexible body so as to produce a trimming of the character desired.

In order to enable others skilled in the art to manufacture our device we have to say that the best method of manufacture known to us up to the present time comprises, first, braiding closely upon a mandrel from end to end a seamless tube, and then while the tube is in place upon the mandrel applying a suitable cement such as shellac or other cement adapted for the purpose, thus in a measure cementing the edges of the interwoven threads together, after which the tube is removed and cut in sections, as hereinafter explained.

We find that extreme care must be exercised to prevent adhesion of the braided tube to the mandrel unless other or special pro-

vision be made to prevent such adhesion, and to this end we in some instances prefer to employ a very thin covering over the mandrel consisting usually of very light, thin, flexible paper which serves to prevent passage of the cement to the surface of the mandrel, and thus prevents adhesion between the tube and mandrel. When it is convenient so to do we remove this lining from the tube or sections, but frequently it adheres and becomes cemented to the inner wall of the tube, and as it is so thin and flexible it is not injurious, and we therefore do not as a rule go to the trouble of separating it from the tube. It, however, forms no substantial part of the trimming, and being so thin and flexible does not injure the trimming.

In order to facilitate the removal of the tube from the mandrel we frequently construct the mandrel so that it may be lessened in diameter. This we may do by employing a sheet-metal tube forming a spring mandrel which will in its normal condition have a diameter less than the interior of the tube, but which thin spring mandrel can be expanded and mounted over a solid mandrel and, as will readily be seen, when the solid mandrel is removed from the thin sheet metal mandrel the latter will collapse and readily become separated from the inner wall of the tube. Of course, any other kind of collapsible mandrel may be employed, and in any event, if sufficient care be used in applying the cement, or if the thin covering on a solid mandrel be employed, the mandrel may be removed from the tube without difficulty.

After the cement has sufficiently hardened, the tube is removed from the mandrel and cut into sections of greater length than the finished product. The end portions of the sections are then turned closely inwardly, as illustrated in Figs. 2 and 3, against the flexible body where they may be cemented or otherwise fastened if desired. We find, however, that fastening means between the inturned ends and the flexible body against which they are folded is unnecessary, as the device is not subjected to any strain, of course, until mounted upon a whip, and then the inturned portions are bound closely between the whip upon which they are mounted and the outer wall of the

trimming, so that all danger of the inturned ends being displaced in any manner is entirely avoided.

It will be observed that the trimming herein described, when mounted upon a whip, has all the appearance of a like trimming braided upon the whip as has been usual heretofore during the process of manufacturing the whip, and that it is seamless, presents no ends which can be in any manner unraveled or separated, and is flexible and very much more economical in cost of manufacture than any independent button heretofore made having the desirable characteristics herein referred to.

We are aware that a whip trimming has heretofore been made comprising a textile material formed in several layers, one upon the other, which layers are cemented together, but such device has the objectionable longitudinal seam which may become affected by moisture and opened, thus destroying the good appearance of the trimming. Such trimming is also rigid and has not the flexible character found in our device. We are also aware that a whip trimming has heretofore been made consisting of a wooden core having a cover braided upon it with the ends of the threads turned or folded in against the core. The core in such construction of trimming becomes an integral part of the trimming and is rigid and has not the flexible, yielding and thin characteristic so much to be desired, and which is found in our device. We are also aware that a trimming has been made consisting of a heavy core or tube of paper to which a braided cover was cemented; such device also is objectionable owing to its lack of flexibility, as the heavy core forms an integral part of the finished product and adds to its thickness, cost of manufacture and weight.

We prefer, in the manufacture of our independent button, to employ threads in clusters as illustrated in the drawings, each cluster comprising four or more threads, and as these threads lie flatwise we are enabled to form the device so that it has great strength and flexibility and has the appearance of a button formed of strips of material of greater width than a single thread, and we are enabled to employ the same material and produce buttons presenting a different appearance dependent on whether a greater or a less number of threads be employed in each cluster. It will readily be understood that thread is the strongest material of which a button may be formed and that by the employment of clusters of threads or a number of strands lying flatwise we produce a button having great strength and at the same time the walls are of no greater thickness than the thickness of a single strand of thread.

Having, therefore, described our invention, what we claim as new and desire to secure by Letters Patent, is—

1. A flexible whip trimming, comprising a substantially straight cylindrical, seamless, flexible tube formed of braided strands and having the end portions of the tube folded in closely against the flexible body, substantially as shown.

2. An independent whip button having a substantially straight tubular body formed solely of flat strands consisting of a plurality of threads extending diagonally and interwoven with each other in tubular form with the ends turned inwardly against the body substantially as shown.

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Witnesses:

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