

(No Model.)

C. E. WILLIAMS.

WHIP BUTTON.

No. 373,167.

Patented Nov. 15, 1887.

FIG. 1.

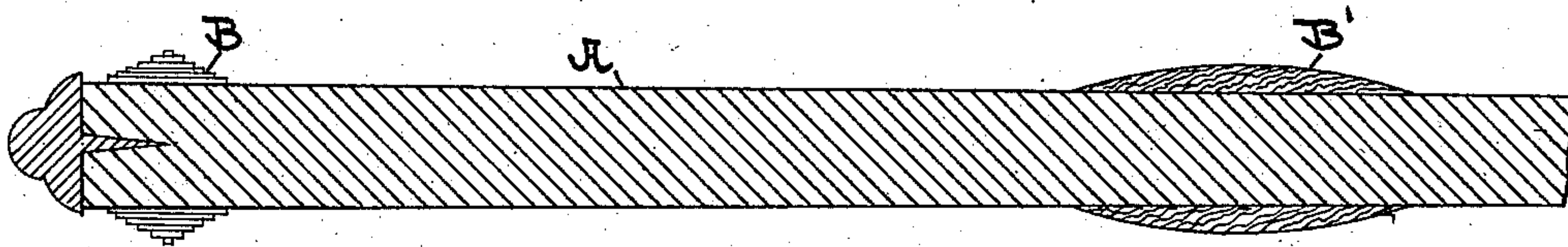


FIG. 2.

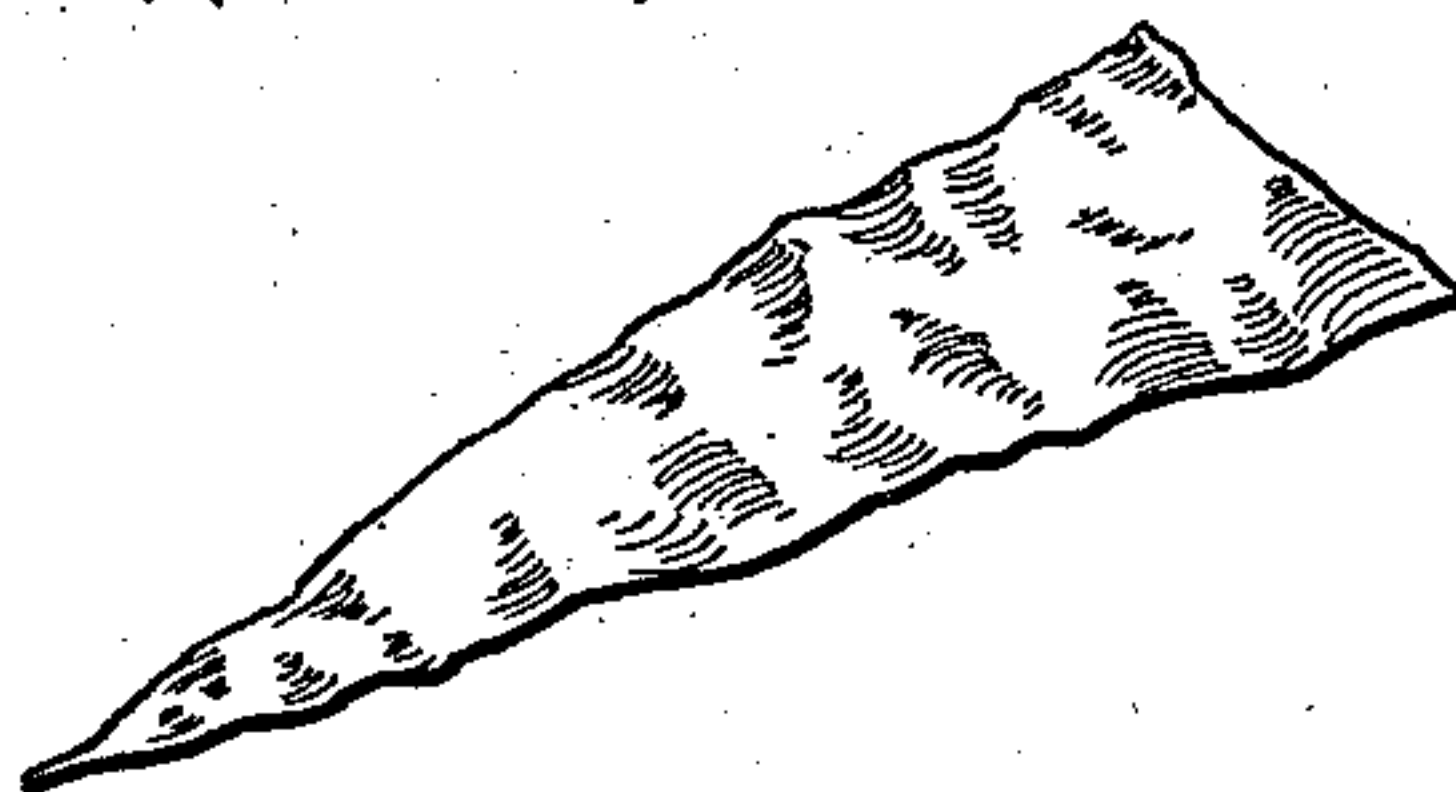


FIG. 3.

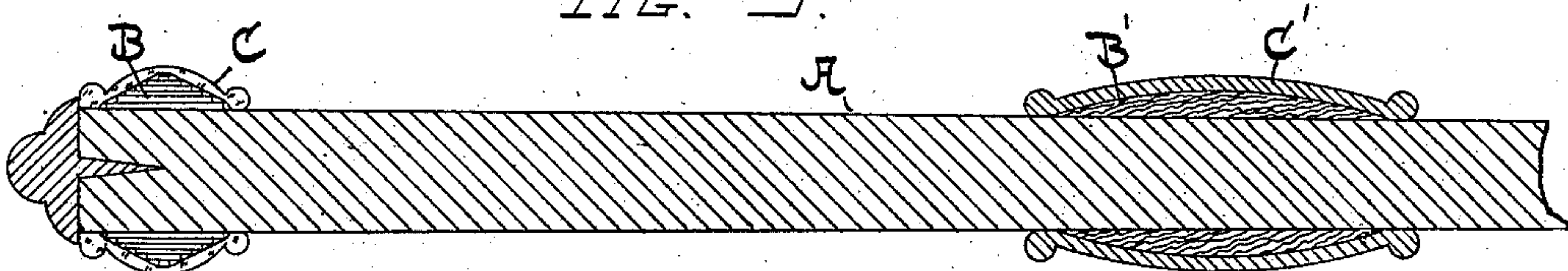
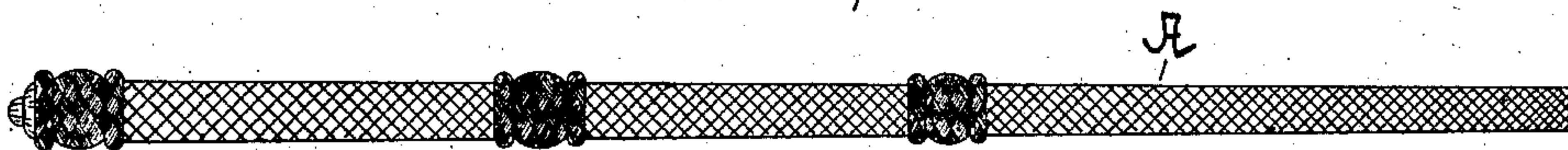


FIG. 4.



Witnesses—

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# UNITED STATES PATENT OFFICE.

CHARLES E. WILLIAMS, OF WESTFIELD, MASSACHUSETTS.

## WHIP-BUTTON.

SPECIFICATION forming part of Letters Patent No. 373,167, dated November 15, 1887.

Application filed September 5, 1887. Serial No. 248,819. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES E. WILLIAMS, of Westfield, in the county of Hampden and Commonwealth of Massachusetts, have invented a new and useful Combined Button and Weight for Whips, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

In the manufacture of whips much difficulty is encountered with such as are not "full-bone" whips to make them of the proper weight and to so distribute their weight throughout their length that they will be properly balanced. A full-bone whip, or one composed of a continuous piece of whalebone from end to end, can be readily brought to the desired weight and proportions, for the reason that it is homogeneous throughout its length; but such whips are expensive, and for the cheaper grades it is necessary to use other material—such as rattan—and to either make the whip entirely of the cheaper material or to combine it with whalebone, the latter being usually done. The butts of these cheaper grades of whips are weighted with a "load-piece" of metal inserted within the body of the whip, and various expedients have been resorted to for the purpose of securing a proportionate weight to the remaining portion of the whip—such as winding them with leather beneath the plaiting, &c.; but all such expedients have involved a loss of elasticity or an impairment of the symmetry of the whip.

The object of my invention is to provide means whereby the weight of a whip can be accurately proportioned throughout its length, so as to bring its center of gravity at the desired point, and at the same time leave its shape and elasticity wholly undisturbed.

To this end my invention consists in the combined button and weight for whips hereinafter fully described, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a longitudinal sectional view of a portion of a whip provided with metallic button-molds according to my invention. Fig. 2 shows a strip of the metal from which the molds may be formed. Fig. 3 is a view similar to Fig. 1, showing the molds covered to form buttons. Fig. 4 is a view of a whip having three of the combined

buttons and weights thereon, the molds having a plaited covering.

In Fig. 1, the letter A designates a portion of a whip having the usual nail-head at the end and having button-molds B B' thereon. These molds instead of being made of wicking, as heretofore, are made of metal. I prefer to form them from sheet-lead or lead-foil, because of the facility with which it can be applied to the whip by winding a strip thereof, such as is shown in Fig. 2, thereon until a mold of the desired weight is formed. When the mold is to have a covering of soft rubber, as shown at C in Fig. 3, the strip may be wound upon the whip in superposed layers of considerable thickness, as designated by the letter B, since the elasticity of the rubber covering will cause it to assume a truly oval shape, as shown, whether the surface of the mold be smooth or not. Such soft-rubber covering for whip-buttons is described and claimed in an application for Letters Patent filed by me on the 1st day of September, A. D. 1887, serially numbered 248,434, and forms no part of my present invention.

When a non-elastic covering is to be used, such as is designated by the letter C' in Fig. 3, the strip of metal should be of considerably less thickness, so that as it is wound upon the whip it can be molded to the oval conformation designated by the letter B', which can readily be done with a soft metal like lead, the several layers being merged into a practically solid mass, as shown. Such mold moreover can be knurled into the shape of the ordinary "thread button" and covered by manually braiding thread thereover in the same manner that it has heretofore been braided over molds formed of wicking, and a button like those shown in Fig. 4 will be produced, which will be identical in appearance with the usual thread button.

The position of the metallic molds upon the whip will be governed by the particular style of the latter and their size by the amount of weight which the whip should have at those points to balance it properly.

It is customary to make at least three buttons upon whips, as shown in Fig. 4, and often others are added at short distances apart toward the tip, and it will readily be seen that by the use of metallic molds for such buttons



the weight of the whip can be so distributed as to bring its center of gravity at exactly the right point without changing its appearance or impairing its elasticity in the least particular.

5 The molds, of course, could be cast or molded into ring or half-ring form before being applied to the whip and could be composed of other metals than lead; but I prefer to use lead, because of its weight and cheapness, and prefer  
10 to apply it by winding it in sheet form about the whip, for the reason that I thus avoid the necessity of keeping in stock a great number of molds of various sizes and patterns and because the desired weight can be given to the  
15 whip at any given point very accurately by varying the amount of metal in the several molds.

I do not wish to limit myself to the use of the metallic molds with the styles of buttons  
20 herein shown, as the outer covering therefor can be varied to suit the taste of the user.

Having thus fully described my invention,

what I claim, and desire to secure by Letters Patent, is—

1. The combined button and weight for 25 whips, consisting of a metallic mold formed upon or secured to the whip, said mold having a non-metallic outer covering, substantially as described.

2. The combined button and weight for 30 whips, consisting of a flexible strip of metal wound about the whip in superposed layers and a non-metallic outer covering wholly inclosing said strip, substantially as set forth.

3. The combination, with the whip A, of a 35 series of leaden molds formed thereon between the ends thereof, each of said molds being wholly inclosed within a textile or other covering, substantially as set forth.

CHARLES E. WILLIAMS.

Witnesses:

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H. K. HAWES.