

(No Model.)

C. E. WILLIAMS.

WHIP CAP.

No. 373,165.

Patented Nov. 15, 1887.

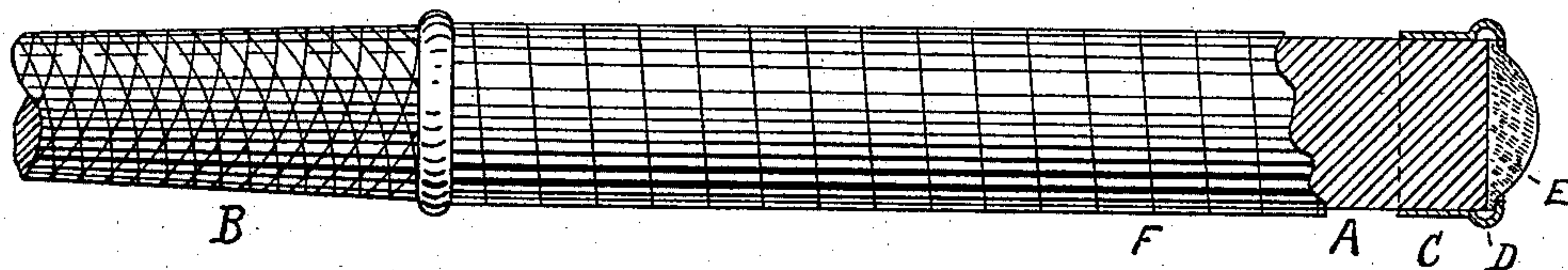


Fig. 1.

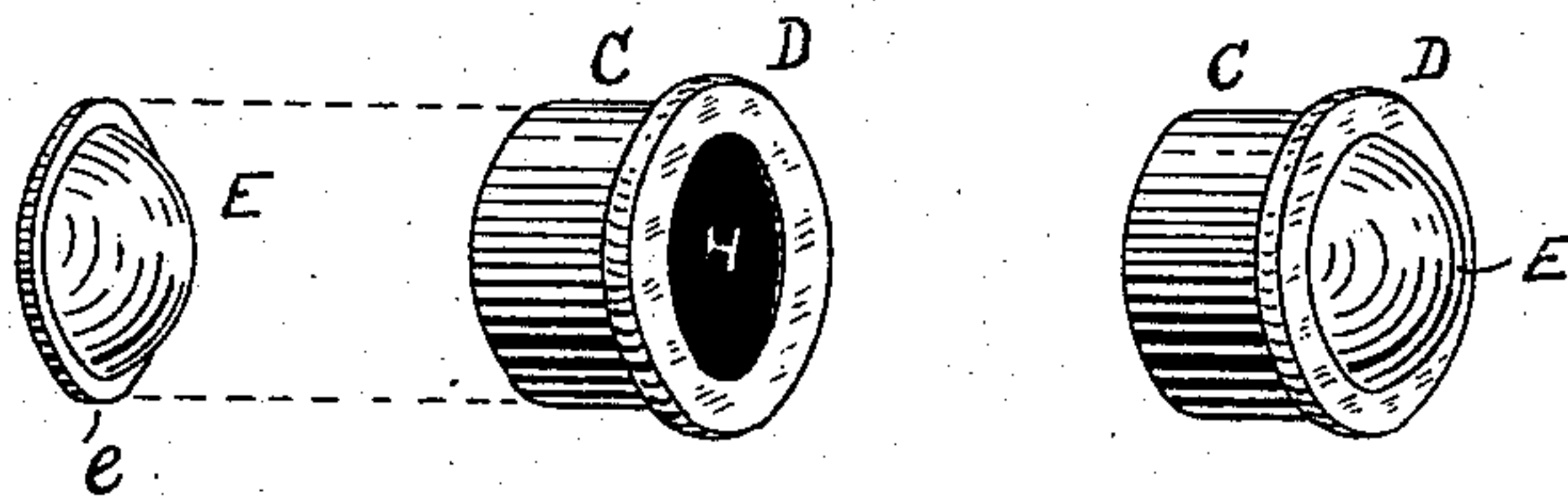


Fig. 2.

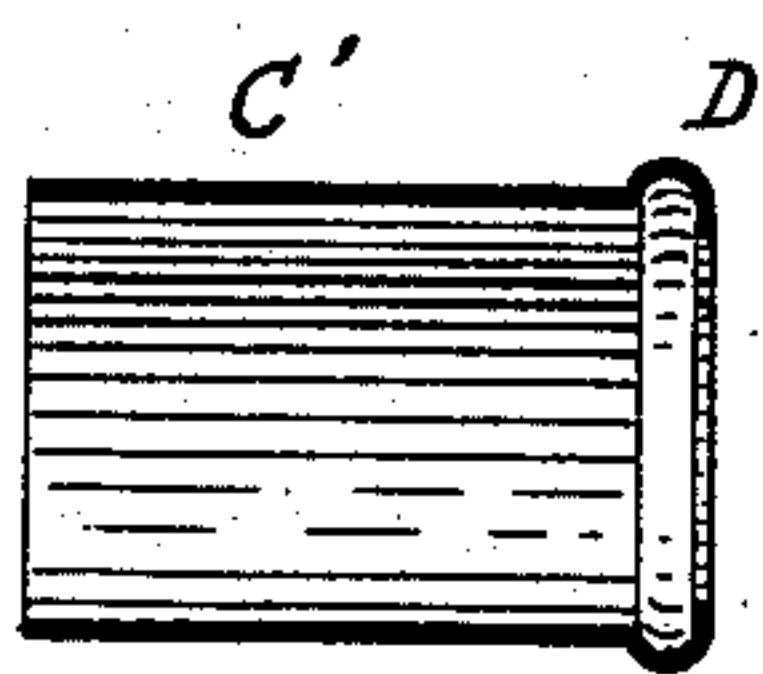


Fig. 3.



Fig. 4.

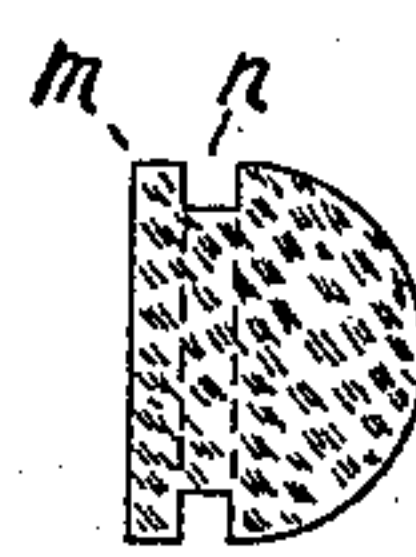


Fig. 5.

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# UNITED STATES PATENT OFFICE.

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## WHIP-CAP.

SPECIFICATION forming part of Letters Patent No. 373,165, dated November 15, 1887.

Application filed October 25, 1886. Serial No. 217,105. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES E. WILLIAMS, a citizen of the United States, residing at Westfield, in the county of Hampden and Commonwealth of Massachusetts, have invented a new and useful Improvement in Whip-Caps and Whip-Heads, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

My invention relates to the cap or head which is secured to the butt-end of a whip as a means of protection therefor and to impart an ornamental finish thereto. These caps and heads have heretofore consisted of a closed covering for the end of the whip, having integral therewith either a narrow band or ferrule embracing the periphery of the whip-stock beneath the braided or woven covering thereof or the ferrule is widened to form a tube, and is placed outside the whip-covering, thus inclosing the butt for a distance of two inches (more or less) from the end. In the former case they are known as "caps," and in the latter as "heads." They have been made from various metallic substances, and from vulcanized rubber, horn, bone, &c., by stamping, rolling, molding, and various other processes, and have been secured to the whip by cementing or riveting. All such caps and heads, however, have been found to be objectionable, for the reason that in the careless use to which whips are usually subjected they become broken or indented to such a degree as to greatly mar the beauty of the whip long before it is worn out. The noise and jar caused by the contact of the end of the whip with parts of the carriage, moreover, renders their use unpleasant. One form of cap has been devised to overcome these objections, the same consisting of a closed cap of soft rubber, which is cemented upon the end of the whip-butt, the latter being shouldered upon its periphery to receive the cap, and a rubber ferrule, which embraces the cap and assists in retaining it upon the whip. This construction, while it largely overcomes the objections to the common form of caps above noted, is itself open to serious objections, in that, covering as it does the whole exposed end of the whip, it is liable to be ruptured at the periphery by coming in contact with sharp objects, and thus

become unsightly; in that, also, it has been found to be impossible to ornament the edges of these soft-rubber caps in a manner to correspond with the ornamentation of the whip-stock, thus imparting an unfinished appearance to the whip, and in that, furthermore, the time and labor required to apply this cap to the whip render their use expensive.

The object of my invention is to provide a whip cap and head which will be free from all of these objections, and yet possess all the advantages of the last-mentioned construction, which will add to rather than detract from the ornamental appearance of the whip when applied thereto, and which can be manufactured at a comparatively trifling cost.

To these ends my invention consists in a cap or head adapted to be secured to the end of a whip, consisting of a tube open at one end and partially closed at the opposite end by an internal annular flange or its equivalent, and an elastic cushioning device peripherally retained within the tube by said flange, and having a portion of its face projecting beyond the partially-closed end of the tube.

My invention, furthermore, comprises the application of such cap or head to a whip.

Referring to the drawings, in which like letters designate like parts in the several figures, Figure 1 is a side view, partly in section, of a whip-butt having my invention applied thereto. Fig. 2 is a diagrammatic perspective view showing the cushioning device and the cap separately, and also as combined when applied to the whip. Fig. 3 is a longitudinal central sectional view of a whip-head made according to my invention. Figs. 4 and 5 are detail views showing slight modifications in the form of the cushioning device.

The letter A designates the handle portion, and B the main body portion, of a whip-stock.

C designates my new whip-cap, which is adapted to be applied to the whip, as shown in Fig. 1. The cap is perforated at the end, as at H, and is preferably provided with the peripheral bead D, as shown. This cap may be constructed from any suitable metallic substance, or from horn, bone, vulcanized rubber, &c., by stamping, rolling, turning, molding, or other usual process. The perforation at H is preferably of a diameter but slightly less



than that of the butt of the whip, thus leaving a narrow flange extending inward from the periphery of the outer end of the cap.

E designates the cushioning device, which, for the purpose of illustrating my invention, I have shown as consisting of a disk of soft rubber having a convex face. As shown in Fig. 2, the disk is provided with a peripheral flange, *e*, and when placed within the cap, as indicated by dotted lines in said figure, this flange, resting against the flange at the end of the cap, permits the convex portion of the disk to project through the perforation in and beyond the outer face of the cap, as shown in Figs. 1 and 2, while at the same time preventing the bodily passage of the disk through the perforation. The cap and disk thus combined are applied to a whip, as shown in Fig. 1, by placing the cap upon the butt-end thereof with the disk firmly held between the end of the whip and the flange on the cap. When so applied, the cap may be permanently secured to the whip by riveting or the well-known "pricking" process, or by the use of cement.

After securing the cap to the whip, the ornamental covering F of the handle may be applied, so as to cover the periphery of the cap, with the exception of the bead D; or the tubular portion of the cap may be covered by an ornamental "button," as the fancy of the maker may dictate. It will be noted that when thus applied the convex face of the disk forms a perfect cushion for the end of the whip without having projecting corners to become disfigured in use, and that the cap being constructed of a material to correspond with the remainder of the whip can be finished uniformly therewith, and thus add to the beauty of the completed whip.

In Fig. 3, the letter C' designates a whip-head made according to my invention, which differs from the cap just described only in that the band or ferrule portion is widened, and when applied to the whip is designed to be placed outside of the covering F, instead of beneath it, for the purpose of varying the ornamentation of the whip. The disk E co-operates with the head in precisely the same manner as with the cap, and the description thereof need not be repeated.

In Figs. 4 and 5 I have shown slight changes in the shape of the cushioning device—that in Fig. 4 having simply a straight side, *a*, and a convex side, *b*, the peripheral flange *e* being omitted, and that in Fig. 5 having the flange *m*, formed by cutting the peripheral groove *n*

from the body of the disk. These modified forms are both adapted to co-operate with either the cap or head in the manner above described; but I prefer to use the flanged disk shown in Fig. 2.

The cushioning device may be composed of soft rubber, leather, or other flexible material, or of vulcanized rubber, ivory, celluloid, or other hard material possessing elasticity; but I prefer to use soft rubber, because of the facility with which that substance can be molded into the proper form.

It will be observed that the cap or head and the cushioning device constitute an article of commerce which can be manufactured and placed in the market at a small cost, and that no change either in it or the whip is necessary for its application thereto.

It will also be observed that when applied to the whip the cushioning device is secured in place without the use of cement, and consequently either the cap or the cushioning device can be readily replaced by a new one should it become necessary.

The perforation H may be increased or diminished in size and varied in contour from that shown, as may also the convex portion of the cushioning device, without departing from the spirit of my invention. The bead D may also be omitted entirely, or other beads may be added to the periphery of the cap to suit the fancy of the maker.

I claim—

1. As an improved article of manufacture, an independent cap for whips, consisting of a ring or tube having an annular flange at one end and a yielding filling-piece held at said end by contact with said flange and projecting beyond the end of the ring or tube, substantially as described.

2. The cap C, having the flanged end and perforation H, in combination with the elastic cushion E, having the peripheral flange *e* and convex face, substantially as and for the purpose set forth.

3. The whip-butt A, cap C, having the bead D, terminating in an internal flange, and an elastic cushion, E, held against the end of the butt by the contact of its periphery with said flange, combined and operating in the manner and for the purpose set forth.

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Witnesses:

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