(No Model.)

J. E. HAYWARD.

WHIP BUTTON.

No. 456,144. Patented July 21, 1891.

Fig 1

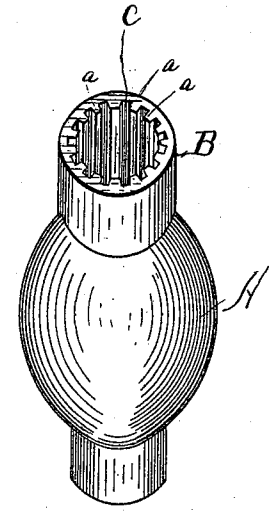


Fig 5

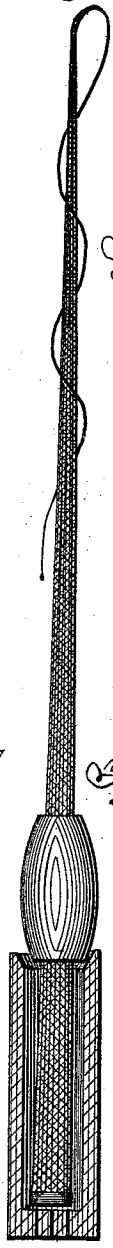


Fig 3

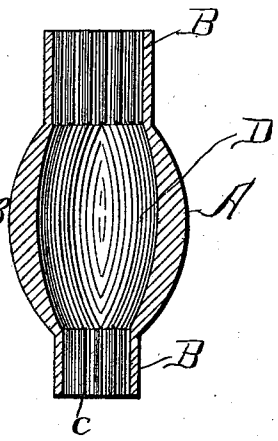


Fig 2

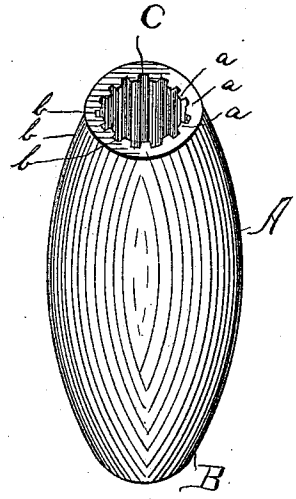
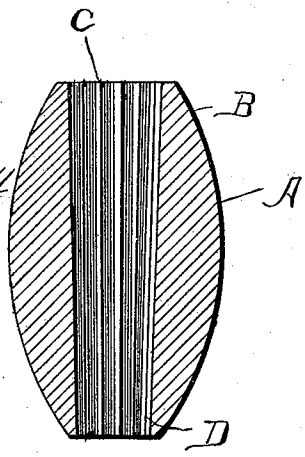


Fig 4



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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WHIP-BUTTON.

SPECIFICATION forming part of Letters Patent No. 456,144, dated July 21, 1891.

Application filed March 7, 1891. Serial No. 384,118. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH E. HAYWARD, a citizen of the United States, residing at Elmwood, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Whip-Protectors, of which the following is so full, clear, and exact a description as will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the following drawings, in which—

Figures 1 and 2 are perspective views of my improved protector. Figs. 3 and 4 are longitudinal sections of the protector. Fig. 5 is a side elevation of a whip provided with one of my protectors.

The object of my invention is to provide a protector for whips which will prevent the upper edges of the whip-socket from wearing and disfiguring the whip when in position in the socket.

Another object of my invention is to provide a protector for whips which will prevent any rattling of the whip in the socket while the vehicle is being moved.

Another object of my invention is to provide a protector which will serve as an additional means of grasping the whip firmly against accidentally dropping the whip by reason of its slipping through the hand while on the road.

It is well understood by those who are familiar with the use of vehicles and whips that the upper edge of the whip-socket generally wears and cuts the whip until it is always disfigured and scratched and finally the whip becomes torn and ragged, and frequently the whip-socket wears the groove so deep as to cause the whip to break off at this point. It is obvious also that the presence of this protector on the whip will prevent the upper portion of the dash-board from abrading the whip at that point.

My invention has, therefore, for its object the obviation of the disadvantages above mentioned.

In the accompanying drawings, A designates the main central portion of the protector. B designates the end portions, and C designates the opening through the protector.

In Figs. 1, 2, 3, and 4 the opening C is provided with a series of projecting ribs *a a*, which are adapted to press against the whip, thus enabling the user to press the protector down over a whip whose diameter at the point where it enters the whip-socket is smaller than the opening through the protector, measuring the diameter of the protector from the inner free ends or faces of the projections *a a*. In addition to this advantage the projections *a a* of course leave recesses *b b* between them, and through these interstices water and any accumulated moisture is free to trickle down through the protector into the whip-socket and out through its bottom without disfiguring the protector and without soiling the whip-socket.

In the protector shown in Figs. 1 and 3 the central portion A is shown concavo-convex at B on the inside. In other words, the greatest diameter of the oval portion D of the protector is greater than the diameter of the end sections *b b* of the protector. This makes a softer and more elastic bulb A, makes a lighter protector, and makes a protector which is more elastic, and one which is, therefore more easily expanded to fit a whip the diameter of which is greater than the normal diameter of the opening through the protector. The advantages of such a construction are obvious and need no further comment.

The devices shown in Figs. 1 and 2 also present end sections *b b*, which are substantially cylindrical and substantially of the same thickness from the end of such protector up to the enlarged portion A. This construction will adapt the protector to slip freely into the whip and allow the flaring portion of the bulb A to rest lightly against the protector of the whip-socket, thus securing the same effect as is secured by the use of a device shown in Fig. 2, without the possibility of the protectors becoming wedged into the opening at the mouth of the whip-socket. In every instance the bulb is made larger by thickening it centrally between its ends.

From the foregoing it will be readily understood that such a whip-protector will last longer; the whip will always present the same neat, artistic appearance in the region of the top of the whip-socket when it is in position in the socket and when removed from the

socket; the driver may grasp the whip lightly between the butt and the protector and hold his reins at the same time without paying especial attention to the holding of the whip, and the protector will prevent it from slipping through his hands, as frequently occurs in the management of troublesome, wild, or frightened horses.

The protector proper is preferably elastic, and it may be made of rubber, leather, papier-maché, or pulp pressed into the proper shape. It is obvious, however, that it may be made of non-elastic material on the outside and it may be provided with an elastic or flexible lining. In such cases the outside may be made of celluloid, glass, porcelain, ivory, metal, horn, bone, or any other suitable material, which may be highly ornamented, and which will not be readily soiled by contact with the whip-socket. In such cases it may be advantageous to have the name of the owner marked on his whip-protector. This may be done without much trouble, and the owner can thus identify his whip at all times without serious inconvenience. These advantages naturally suggest themselves to the dealer and to the person using such an article, and who are familiar with the trouble incidental to mixing up of whips at boarding-stables and other places of general assemblage, and make the article above described a great desideratum.

Having described the objects, uses, and advantages of my device, what I believe to be new, and desire to secure by Letters Patent of the United States, and what I therefore claim, is—

1. In a whip-protector of the character described, a bulb having end sections which are substantially of uniform thickness, and a central portion which is larger than the end portions and which is concavo-convex on the inside, and the inner diameter of which central section is greater than the normal inner diameter of the end sections, said end sections having longitudinal interior ribs, substantially as described.

2. In a whip-protector of the character described, a bulb made larger and thickened between its ends and provided with an elastic lining having elastic interior longitudinal projections or ribs and recesses between them, substantially as and for the purposes specified.

In testimony whereof I affix my signature in the presence of two witnesses.

JOSIAH E. HAYWARD.

Witnesses:
IRA A. LEACH,
HENRY HIATT.