July 27, 1926.

1,594,174

H. R. HART

PROTECTIVE DEVICE FOR ATHLETIC WEAR

Filed March 13. 1923

Fig. 1.

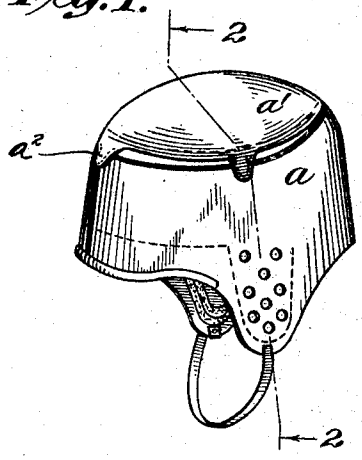
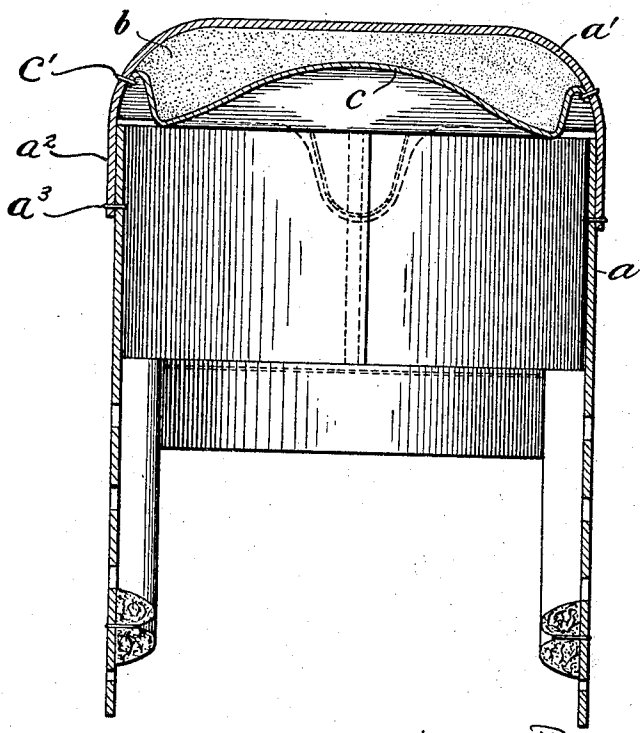


Fig. 2.



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Patented July 27, 1926. 1,594,174

UNITED STATES PATENT OFFICE.

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PROTECTIVE DEVICE FOR ATHLETIC WEAR.

Application filed March 13, 1923. Serial No. 624,723.

The present invention relates to devices intended primarily for use in connection with athletic wear for the protection of the person. Ordinarily, athletic articles of wearing apparel such as head guards, shin guards, shoulder, knee and hip pads for football, baseball, basketball and hockey have had associated therewith some form of padding such as felt. During the entire development of such apparel, however, both manufacturers and users have recognized the limitations of life imposed by the padding owing to the fact that its resiliency and protective qualities have depended on the arrangement of its fibers and this arrangement is quickly disturbed by blows and dampness whether from perspiration or rain. The rearrangement of fibers which takes place in known padding is their matting or intimate union with loss of springiness. This condition is greatly accentuated by wetness in which case the fiber mats and deteriorates and becomes compact so that it is hard an unresilient and a blow transmitted through it is not cushioned.

The principal object of the present invention is to provide a non-fibrous protective device for athletic wear which shall have relatively permanent properties of resiliency and shall not be subject to rapid deterioration or hardening under blows or wetness. More particularly, the invention seeks to provide a protective device for athletic apparel which consists essentially of a pad of sponge rubber which retains its elasticity and will last effectively as long as the garment with which it is associated. Still another object of the invention is to provide a protective device which shall lend itself to cheaper manufacture and to greater facility of forming and shaping than any padding, such as felt, heretofore employed.

The invention is shown as embodied in a football helmet, for purposes of convenience, but it is to be understood that protective devices having similar properties may be associated with other articles of wear, either for athletics or others, whenever protection against blows is to be afforded.

In the drawings:

Figure 1 is a view in perspective of a football helmet having associated with its crown a protective device of sponge rubber.

Figure 2 is a view in section taken on the planes indicated by the broken lines 2—2 of Figure 1 and looking in the direction of the arrows and showing a suitable form of sponge rubber protective device associated with the crown by a simple and inexpensive means.

As pointed out hereinbefore, the invention is in nowise limited to the character of the garment with which the improved device is associated but for purposes of this application there has been illustrated a football helmet *a* of any suitable form and composition having a spaced crown *a'* with which is to be associated a protective device to cushion blows on the head of the wearer. The development of the art in recent years led to the use of felt padding as the most suitable but its limitations are well known to both the manufacturer and the wearer. Not only is it difficult to shape and form felt in proper thickness and outline for incorporation in apparel but its properties adapt it to the purpose intended for a comparatively short time only. The fibers of the felt mat very readily under blows and compact so that the device deteriorates quickly and becomes hard and unyielding much to the discomfort and danger of the wearer. Further, such devices are constantly subjected to a saturation by either perspiration or rain and this wetness greatly hastens the matting action and renders the device even harder when subsequently dried. In accordance with the present invention the improved protective device is of such a nature as to be free from the disadvantages enumerated above with respect to felt and, in addition, has many advantages from the standpoint of the manufacturer in that it lends itself admirably to forming and shaping both as to thickness and outline. It has been found after considerable study and use that sponge rubber is adaptable to the requirements of use and manufacture of such protective devices and the drawings show a protective device *b* of such material formed and shaped for convenient incorporation in the spaced crown *a'* of the helmet *a*. Being of a non fibrous character this sponge rubber is impervious to the action of water in so far as concerns its physical properties and does not deteriorate rapidly or become compact under blows. Its life, measured by its resiliency, is extended and in use it affords greater protection to the wearer than does felt or other padding and

extends the usefulness of the particular apparel over a much greater period of time. As shown in Figure 2 the device may be of greater thickness adjacent its outer edge than at its center as will be desirable to conform to the general curvature of the head of the wearer. It is retained in place by means of a soft leather casing c which may embrace it snugly and be stitched as at c' to the crown a' which for the purpose of ventilation and to further contribute to the conforming movements of the crown piece is spaced from the side or main portion a by by tabs a^2 secured as by stitching a^3.

As indicated before, the invention is not limited to the particular article with which the improved protective device is associated nor to its form or size.

What I claim is:

In a football helmet, a leather crown formed with spaced tabs, a pad of sponge rubber shaped to conform generally to the head of the wearer, means comprising a soft leather casing stitched to the crown to retain said pad in place within the crown, and stitching to maintain said crown in spaced relation to the body of the helmet by means of said tabs.

This specification signed this 9th day of March, A. D. 1923.

HENRY RIDGEWAY HART.