

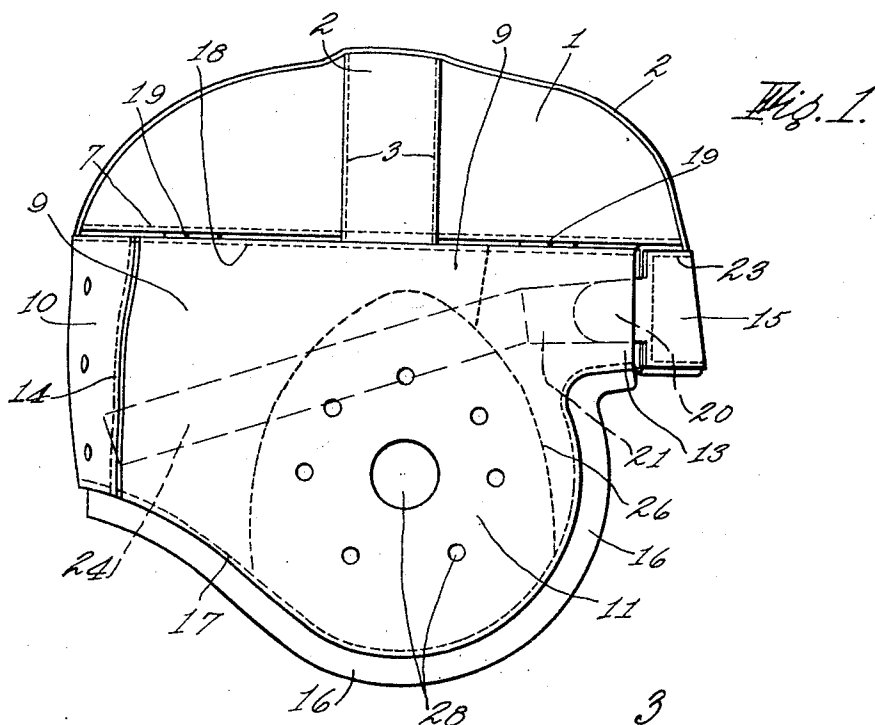
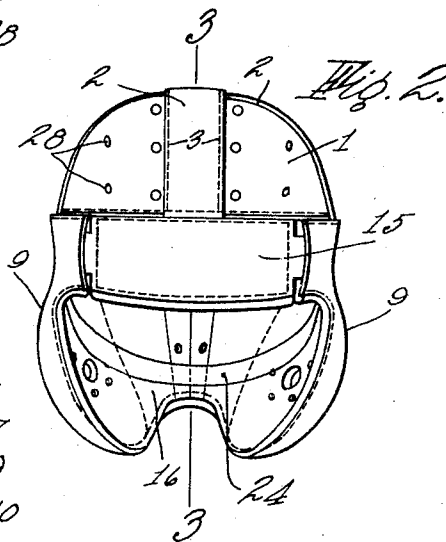
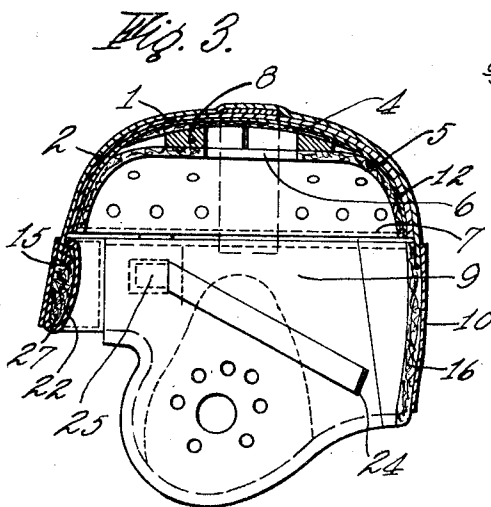
May 15, 1928.

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1,669,914

FOOTBALL HELMET

Filed May 1, 1925



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UNITED STATES PATENT OFFICE.

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FOOTBALL HELMET.

Application filed May 1, 1925. Serial No. 27,194.

This invention relates to helmets and particularly to the type of helmet which is worn by football players for protecting the head from injuries.

In general, helmets of this character are made of semi-stiff material such as leather and are padded on the inside to reduce the shocks and protect the head from blows incidental to the game. Heretofore, this type of helmet has usually consisted of a protective covering for the head having depending ear pieces the lower ends of which are connected by an adjustable strap passing under the chin of the wearer to hold the helmet in place.

One object of the present invention is to provide a new and improved helmet which protects a greater portion of the head than formerly, particularly the sides and back of the head including the base of the skull.

Another object is to provide a helmet of the above type having a holding strap which allows a more convenient and easier positioning and removal of the helmet on the head than that previously provided and which retains the helmet on the head in a tight and close fitting relation without the use of a chin strap and without any adjustment of the holding strap.

A still further object is to provide a helmet wherein the protective portions are extended below the ears and base of the skull to partially protect the neck and, by reason of the construction and arrangement of same, embrace and hug the neck so as to assist in holding and fitting the helmet to the head of the wearer.

Further objects and advantages will appear from the following detail description and accompanying drawings, in which:

Fig. 1 is a side elevation of my improved helmet;

Fig. 2 is a front elevation of same; and

Fig. 3 is a section taken on the line 3—3 of Fig. 2.

In general, my improved helmet comprises a crown member for protecting the top of the head with the usual brow band for the forehead, side members including ear protecting portions and a back member for protecting the back of the head or base of the skull. The side members and back member are integrally united to form a continuous uninterrupted protective covering for the sides and back of the head and are made to

converge so as to snugly embrace and fit these portions of the head, thus helping to retain the helmet in position. Suitable padding of felt or the like is provided for the various parts, as is customary in helmets of this character. The side and back members of the helmet are extended downwardly toward the neck of the wearer as low as is consistent with comfort in use, and in connection therewith a suitable holding strap mounted within the helmet to engage the back of the head is provided, as distinguished from the usual chin strap, whereby the helmet may be more easily taken on and off.

Referring to the drawings, in my preferred form the helmet is made up of the crown member 1 of the usual semi-stiff material such as leather shaped to fit the top of the head and provided with the usual reinforcing strips 2 extending around the outer surface, as shown in the drawings. The strips 2 are secured to the member 1 by the rows of stitching 3 and have their ends extending a short distance beyond the lower edge of the crown member for a purpose which will be presently described. The inside of the crown member is lined or padded with felt or similar material which preferably consists of two separate layers or sections 4 and 5, as shown in Fig. 3. The layer 4 lines the inside around the top or flat portion of the crown member 1 and is adhesively secured thereto. The layer 5 lines the entire inside but is preferably provided with a circular opening 6 at the top and is also adhesively secured to the curved sides of the crown member 1. A row of stitching 7 secures the lower edges of the layer 5 and crown member 1 together. Between the overlapping portions of the layers 4 and 5, I preferably insert an annular piece 8 of sponge rubber or like material which is adhesively secured between the layers. This construction provides a cushioning of the helmet on the top of the head and allows a closer fit at this point besides giving additional protection from shocks and blows. It is also desirable to reinforce the crown member with a stiffening insert 12 of fiber board or the like which is preferably located on the inside next adjacent the leather of the crown member, which thus renders the crown member semi-rigid in character.

Depending from the crown member 1

are side members 9 and a back member 10, likewise of semi-stiff material such as leather. The side members 9 each comprise an ear protecting portion 11 and portions adjacent thereto, as shown, for protecting the sides of the head. The ear protecting portions 11 are preferably reinforced by a fiber board insert so as to be semi-rigid in character, and the adjacent semi-stiff leather portions of the side members are integrally joined to the back member 10 by the stitching 14. The side and back members 9 and 10 are lined with felt padding preferably consisting of a single piece 16 secured thereto by the rows of stitchings 17 and 18 adjacent the lower and upper edges respectively of the joined members 9 and 10. The stitching 18 also secures the ends of the strips 2 extending from the crown member 1 to the joined members 9 and 10, whereby the members 9 and 10 are hingedly connected to the crown member 1 and depend therefrom with their edges closely abutting the edge of the latter. Short strips 19 depending from the crown member and secured thereto by the stitching 7 are secured to the side members 9 by the stitching 18 and thereby assist in holding the upper edges thereof in contiguous relation with the edge of the crown member 1. The semi-rigidly formed ear portions 11 are also provided with the stitching 26 to hold the padding more firmly in place on the inside of these portions and the padding projects a short distance from the lower and front edges of the side and back members 9 and 10.

The back member 10 is extended down to a point adjacent the nape of the neck and the side members 9 comprising the ear protecting and adjacent portions are extended down to points adjacent the sides of the neck so that these members 9 and 10 form a continuous uninterrupted protective covering for the entire back and sides of the head and neck. It will be noted also that the side and back members extend sufficiently far down toward the neck of the wearer that insufficient space is provided between the front lower edges of the side members to which a chin strap would ordinarily be secured, and the lower edge of the back member for the insertion of the head into the helmet. The additional protection thus afforded prevents mounting the helmet through the space at the rear of the chin strap position and consequently a new form of holding strap is provided as hereafter described for mounting the helmet through its opening at the front.

The members 9 and 10 also converge inwardly and are so shaped and formed and joined together with the crown member 1 that they inherently hug the back and sides of the head with their lower edges embracing the back and sides of the neck. This method of construction causes these portions

of the helmet to closely fit the head and neck and tend to remain in position, and further security against displacement is provided by a holding strap hereinafter described.

The front extensions 13 of the side members 9 are joined together by the usual forehead strap or brow band 15, the ends of which are connected thereto preferably by elastic straps 21 allowing the strap 15 a certain amount of flexibility in relation to the side members. The strap 15 is preferably provided with short tabs 20 at each end which are adapted to engage pockets formed in the extensions 13 to hold the ends thereof in a contiguous relation with the extensions 13 and with the edge of the crown member 1. The strap 15 is provided with the usual padding 27 and sweat band 22 which is secured thereto by the stitching 23. The stitching 23 also secures the strap 15 to an end of the reinforcing strip 2 at the front of crown member 1 in a depending relation thereto.

A holding strap 24, preferably of elastic material, is mounted wholly within the helmet and has its ends secured to the inside of the helmet adjacent the upper front portion thereof and extends rearwardly and downwardly therefrom to engage the back of the wearer's head or neck. In the present embodiment I have shown the strap 24 secured at opposite points 25 on the inside of the front extensions 13. Suitable ventilating holes 28 may be provided in various parts of the helmet, as shown.

The holding strap 24 when engaged by the back of the wearer's head exerts a downward and slightly rearward tension on the helmet causing the top and front portions thereof to snugly fit the head and firmly holds the helmet in place on the head and at the same time, by reason of the construction and arrangement of the side and back members as hereinbefore described, these members snugly fit and protect the sides and back of the head and neck and assist in holding the helmet in place.

By the arrangement of the holding strap as shown, as distinguished from the usual chin strap which is connected to the lower ends of the ear pieces and passes under the chin of the wearer, I am enabled to afford a much greater protection for the head than is the case with former helmets of this character. For the game of football, a holding strap must be without a buckle because of the danger of injury therefrom. It should preferably be non-detachable and self adjustable so that the helmet may be easily and quickly put on and taken off. Subject to these requirements, a space or opening into the helmet must be provided for the insertion of the head. Heretofore, such an opening has been provided at the rear and necessarily so when a chin strap is used. In

my improvement, the rear opening has been closed to such an extent that there is insufficient space for the insertion of the head in this manner, due to the extension of the protecting side and back members to points adjacent the neck, and this restriction of the rear opening with the resulting greater protection for the head is made possible by the employment of my back holding strap whereby the head may be inserted into the helmet from the front and yet retained in position as firmly, if not more so, than with the usual chin strap.

I wish it to be understood that my invention is not limited to the specific details of construction hereinbefore described and shown in the drawings, but may be varied by equivalent forms of construction all intended to be covered by the appended claims.

I claim:

1. The combination with a football helmet and the like comprising a crown member and side members depending therefrom, a back member also depending from said crown member and integrally joined to the rear edges of said side members to form a continuous uninterrupted protective covering fitting the sides and back of the neck and the base of the skull, said side and rear members being extended sufficiently down and converging inwardly toward the neck of the wearer so that normally insufficient space

is provided between the front lower edges of the side members and the lower edge of the rear member for the insertion of the head, of an elastic head strap mounted within said helmet for engaging the back of the head.

2. The combination with a football helmet and the like comprising a crown member reinforced by stiffening material and side members depending therefrom with ear protecting portions reinforced by stiffening material, an unstiffened back member also depending from said member and integrally joined to the rear edges of said side members to form a continuous uninterrupted protective covering for the sides and back of the neck and the base of the skull, said side and rear members being extended downwardly a sufficient distance and converging inwardly towards the neck of the wearer so that normally insufficient space is provided between the front lower edges of the side members and the lower edge of the rear member for the insertion of the head, of an elastic head strap mounted within said helmet for engaging the back of the head, said head strap being secured at its ends to the upper front portion of said helmet.

In testimony whereof I have affixed my signature.

JAMES B. ROGERS.