May 22, 1923.

G. B. KNIGHT

1,456,183

HEAD PROTECTION ATTACHMENT FOR CAPS, HATS, OR OTHER HEADGEAR

Filed Nov. 10, 1921

Fig. 1.

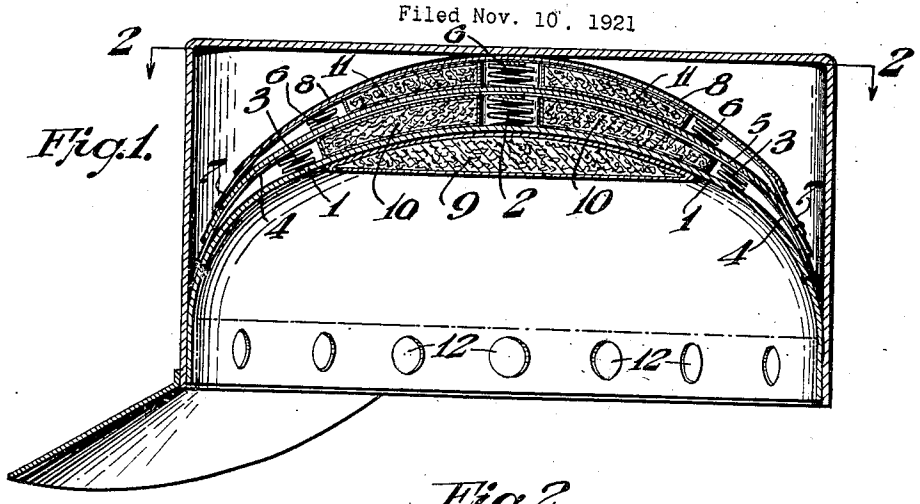


Fig. 2.

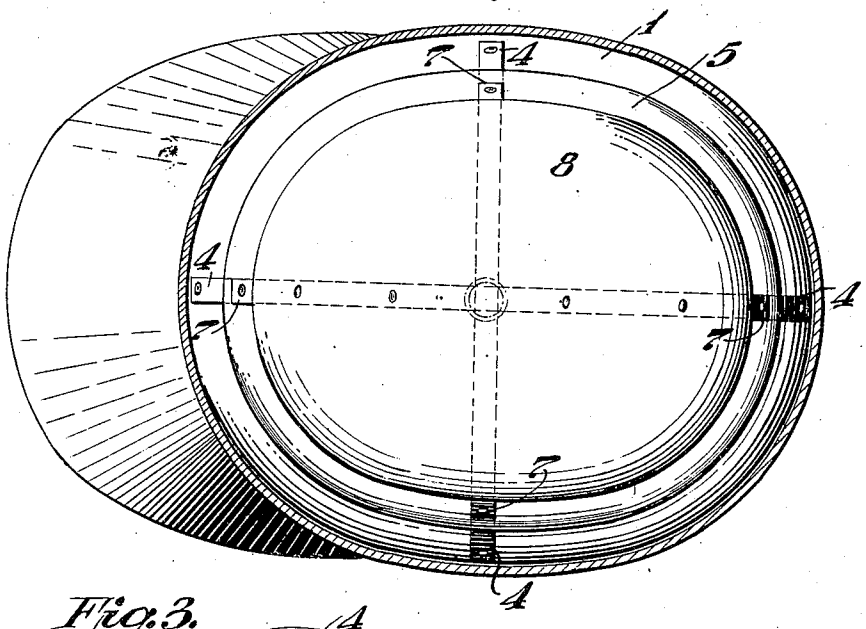
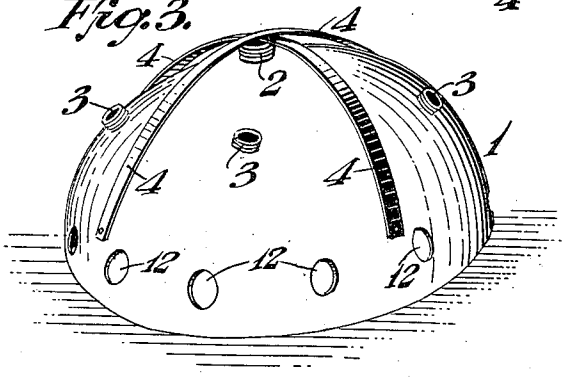


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE B. KNIGHT, OF CAMDEN, NEW JERSEY.

HEAD-PROTECTION ATTACHMENT FOR CAPS, HATS, OR OTHER HEADGEAR.

Application filed November 10, 1921. Serial No. 514,177.

To all whom it may concern:

Be it known that I, GEORGE B. KNIGHT, a citizen of the United States, residing in the city and county of Camden, State of New Jersey, have invented a new and useful Head-Protecting Attachment for Caps, Hats, or Other Headgear, of which the following is a specification.

My invention relates to a device adapted to protect the head from blows, shocks, and the force of articles dropping thereon or being directed against it, so as to avoid injury to the head, and it consists of a foundation of flax or other fibre molded into the shape of a skull cap and thus adapted to fit the head. It consists further of cushioning material imposed on the upper side thereof to receive the impact of said blows, shocks or force of the dropping articles and so prevent the latter from reaching the head and injuriously striking the latter.

It consists also of forming the cushioning material of a resilient member which is seated on and rises from the foundation.

It consists also in adapting the device to be fitted in a cap, hat, or other head gear, and worn with the latter.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific details shown and described, as long as they are within the spirit or scope of the claims.

Figure 1 represents a vertical section of a head protecting device embodying my invention.

Figure 2 represents a horizontal section of a cap on line 2—2 Figure 1, in which the device may be worn.

Figure 3 represents a perspective view of the inner foundation of the device.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings.

1 designates a hollow foundation which is somewhat hemispherical in shape and adapted to be worn as a skull-cap on a head, it being constructed of flax or other fibre which is molded and pressed into said shape, thus producing the foundation light and strong in its nature, and easy to wear.

Imposed on the upper surface of said foundation on the crown thereof is the coiled spring 2. On said surface above the crown are imposed the additional coiled springs 3, the several springs rising from the foundation 1.

Secured at their ends to the upper surface of the foundation are the cross strips 4 which rest at the top on the crown spring 2 and are of a resilient nature and add increased resiliency to the device, strips rising somewhat above said surface so as to be capable of yielding downwardly when pressed by blows, shocks or force, they compressing the spring 2 producing highly resilient cushions in the device.

5 designates an auxiliary foundation which is placed over the foundation 1 and seated on the strips 4 and the additional springs 3.

6 designates a coiled spring which is seated on the crown of the auxiliary foundation 5 and has seated on it the cross strips 7 whose lower terminals are connected with the lower terminals of the cross strip 4. Above said strips 7 is the auxiliary foundation 8 which rests on the spring 6 and strips 7.

The underside of the foundation 1 has connected with it the pad 9 which forms a bottom cushion which when the device is depressed may gently contact with the head and so avoid injury to the latter.

Interposed between the several foundations are the pads 10 and 11 which provide cushioning effects for said foundations, it being noticed that said pads 10 and 11 have therein openings for the reception of the springs 2 and 6 so that the resiliency of the latter is not interfered with which when the device is depressed may gently contact with the head and so avoid injury to the latter.

When the device is placed in a cap, or in lieu thereof a hat or other head-gear, the latter may be worn as usual and should it be subjected to a blow, shock or force of an article dropped thereon or directed against it, it will be received by the device and so resiliently resisted by the same that the blow or force will not be communicated to the head of the wearer, and so injury to the head is prevented. In the side of the foundation 1 are ventilating openings 12 for evident purposes.

Having thus described by invention what I claim as new and desire to secure by Letters Patent, is:—

1. In a head protecting attachment for an article of head-gear, a hollow body adapted to fit the head, crossed resilient strips having their ends secured to said

body and their crossed portions spring-supported, a coiled spring seated on the outer face of said body about the crown thereof, and coiled springs of resilient material connected with said face and seated elevated on said spring.

2. A head protecting attachment for an article of head-gear consisting of a hollow foundation adapted to fit the head, a pad on the underside of said foundation, a hollow body above said foundation, and resilient members and cushioning pads intermediate of said body and foundation and resiliently supported one above the other.

3. A head protecting attachment for an article of head gear, consisting of a hollow foundation to fit the head, a pad on the underside of said foundation, springs resting on said foundation, resilient strips secured at their ends to the lower part of said foundation, an auxiliary foundation on said strips, and a second auxiliary foundation yieldingly supported on the first-named auxiliary foundation.

4. A head protecting attachment for an article of head gear, consisting of a hollow foundation to fit the head, springs resting on said foundation, resilient strips secured at their ends to the lower part of said foundation, an auxiliary foundation on said strips, and a second auxiliary foundation yieldingly supported on the first-named auxiliary foundation.

GEORGE B. KNIGHT.

Witnesses:
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N. BUSSINGER.