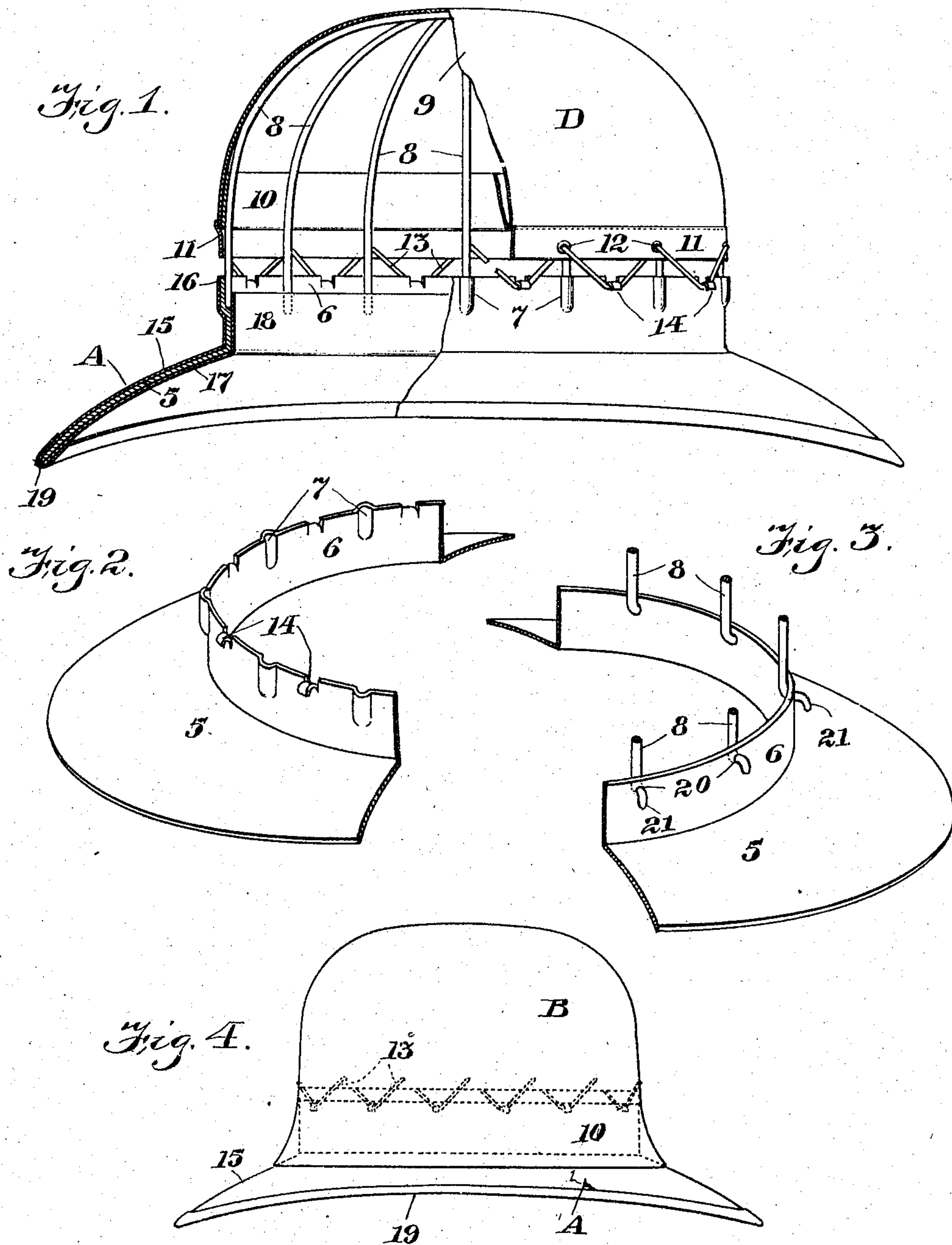


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J. J. CURTIS.  
HELMET.

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# UNITED STATES PATENT OFFICE.

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## HELMET.

SPECIFICATION forming part of Letters Patent No. 780,782, dated January 24, 1905.

Application filed May 12, 1904. Serial No. 207,544.

*To all whom it may concern:*

Be it known that I, JEREMIAH J. CURTIS, a citizen of the United States, and a resident of Jersey City, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Helmets, of which the following is a specification.

My improvement appertains to certain new and useful improvements in head-gear, and particularly relates to articles of the type referred to called "helmets."

In the present instance I have especially in view as an object the construction of a helmet or similar article of head-gear which will possess many advantages over the helmets now commonly in use.

Further, it is my purpose to produce a helmet which will embody the essential and desired features of lightness, durability, and economy.

In making my improved helmet it is also my intention to so construct the crown and arrange the same relative to the brim that when such crown is secured in a certain manner a space or opening will be left for the admission of air and the ventilation of the helmet, while at other times the crown-covering may be secured to the brim in such a manner as to close said opening to make the article waterproof.

The great disadvantage incident to many of the helmets now worn by firemen, policemen, and similar public officials is that the article is entirely too heavy and that it is not sufficiently ventilated. It is therefore a further object of my invention to so stiffen the helmet that while constructed of very light material it will have the strength and stiffness of the ordinary helmet.

With the above-recited objects and others of similar nature in view my invention consists in the construction, combination, and arrangement of parts, as is described in this specification, delineated in the accompanying drawings, and set forth in the appended claims.

In the drawings like characters of reference indicate similar parts in all the views.

Figure 1 is a side view, partly in elevation and partly in section, of a helmet embodying my improvements, a portion of the helmet

being broken away to show the construction more clearly. Fig. 2 is a perspective view of a portion of the metallic stiffening-brim employed in connection with my invention. Fig. 3 is a similar view of a modified form of brim. Fig. 4 is a view in side elevation of a helmet embodying my improvement and showing the storm flap or curtain of the crown-covering lowered to overlie the ventilating-opening.

In the accompanying drawings the letter A indicates as a whole the brim portion of the helmet, while the crown thereof is designated by B. The brim, which is shaped or formed to the proper contour, is composed of any suitable light rigid material, such as aluminium, and comprises the laterally-extending downwardly-inclined brim portion proper (shown at 5) and the approximately oval upwardly-extending band or flange 6, formed integral with the member 5 and extending around the head-opening in the center of the last-mentioned member. The band member 6 has formed therein a number of sockets or offsets 7, designed to act as anchoring-seats for the curved stay rods or strips 8, which are arranged to form the framework of the helmet-crown, as is shown in Fig. 1, such rods being of any strong light material, such as wire, metallic strips, or the like. As will be seen, the free ends of the stay-strips of the frame are securely socketed in the band of the brim, said stays converging at approximately the center of the top of the crown. The covering of the crown, which is shown at 9, is formed of any suitable light waterproof material or fabric, such as cravenette and the like, the lining or inner surface of the covering being waterproof, while the edge portion of such crown is provided with a curtain or flap, as at 10, designed when not in use as hereinafter described to be folded inside of the main portion of the crown. As will be seen by reference to Figs. 1 and 4, the crown-covering and its flap are formed integral or in one piece and are provided with a strip or band 11 of fabric, having the lacing-eyelets 12, such band being secured or stitched to the covering in such manner than when the covering is applied, as shown in Fig. 1, with the storm-flap folded



inwardly the band will extend circumferentially of the outside of the covering, while when the covering is turned inside out to have the inner waterproof surface thereof exposed the band will lie inside. When it is desired to secure the crown-covering over its frame to the band or flange of the brim, a lacing-cord, as at 13, is passed through the eyelets 12 and then alternately down and under the hooks 14, cut from the material of the band 6, and bent outward and downward to securely retain such lacing-cord. When the crown-covering has been secured in position in the manner just described and in the position shown in Fig. 1, a circumferential opening or space for the ventilation of the crown will be formed between the lower edge of the covering and the brim-band. When it is desired to lower the flap or curtain so as to cover this ventilating-space, as in inclement weather, the lacing-cord is loosened and the covering turned inside out to expose the inner waterproof surface thereof, the curtain unfolded downward and outward, so as to thoroughly cover the opening and the band of the brim, and such covering is then laced, as is shown in Fig. 4, so that the helmet will be to all intents and purposes thoroughly water and storm proof.

As has been hereinbefore stated, the brim of my improved helmet is preferably formed of some extremely light rigid material, such as aluminium, and may be covered with an outer facing 15 of any fabric, this facing extending upward and covering the outer surface of the vertical band 6 and as shown at 16, while the under side of said brim is provided with a similar covering, as is shown at 17, the sweat-band 18 extending up therefrom into the crown of the hat, a binding of braid or the like extending entirely around the outer edge of the brim, as will be seen at 19.

From the above description in connection with the accompanying drawings the manner of using my improved helmet will be readily apparent, so that it is unnecessary to enter into a detailed description of the same.

It will be noted that I have provided an exceedingly simple light durable article of head-gear which is especially applicable for use during the heated season, while at the same time should the weather be inclement or stormy the helmet-covering may be turned inside out and converted into a thorough and effective waterproof head-covering.

In Fig. 3 instead of forming hooks on the brim the band 6 is provided with a number of apertures 20 and the ends of the frame-rods are passed or projected therethrough and formed with hooked ends 21, under which the lacing-cord may pass for retention.

Although I have herein shown and described my improvements as applied particularly to a helmet of the character commonly worn by policemen and similar other public officials, I wish it to be understood that with slight modi-

fications my invention may be used in connection with firemen's helmets and with the caps commonly worn by soldiers, conductors, and other uniformed bodies. It will also be evident that slight changes may be made in certain details of construction without departing from the essential features of the invention or sacrificing any of the advantages thereof.

Now what I claim is—

1. An article of head-gear comprising a brim portion, a crown-frame, a covering for said frame and a storm flap or curtain carried by the crown-covering.

2. An article of head-gear comprising a brim having an upwardly-extending band, a crown-frame supported by the upwardly-extending band, a removable covering for said crown, said covering having a curtain or flap formed integral therewith, which flap is adapted to be folded inwardly against the sides of the covering, and means for securing the covering in position so that the flap or curtain may be lowered to cover the band of the brim.

3. An article of head-gear comprising a rigid brim portion having a band extending upward therefrom, a crown-frame adapted to be seated in sockets formed in the band, a crown-covering for the frame, and a storm curtain or fold carried by the covering and adapted to be folded against the inside of the latter when not in use, but designed to be unfolded down and over the band of the brim to make the helmet waterproof.

4. An article of head-gear comprising a brim portion, a crown-frame removably secured to the brim portion, a crown-covering for the frame, and a storm curtain or flap carried by said covering and adapted to be folded down toward the brim for making the helmet waterproof.

5. An article of head-gear comprising a brim portion, a removable crown-frame carried by the brim, a removable covering for said crown-frame and a lacing for securing the covering to the brim.

6. An article of head-gear comprising a brim, a plurality of lacing projections carried by said brim, a removable crown, and a lacing for securing the crown to the brim.

7. An article of head-gear comprising a brim, a removable crown therefor, a storm flap or curtain carried by the crown, and means for securing the crown in position, the construction being such that when the curtain is folded inward against the crown a ventilating-space will be left between the crown and the brim, but when the flap or curtain is unfolded downward toward the brim, such ventilating-space will be closed.

8. An article of head-gear comprising a rigid brim of aluminium or the like, a crown-frame carried by said brim, a removable waterproof covering for said crown, having a storm flap or curtain formed integral therewith, a band or strip secured to the crown and



having lacing-eyelets formed therein, lacing-hooks carried by the brim, and a lacing-cord designed to pass through the eyelets of the band and around the hooks for the purpose  
5 of securing the covering to the brim, in such manner that when the curtain or flap is folded inward against the crown a ventilating-space will be formed around the helmet between the base of the crown and the brim, but when the  
10 covering is turned inside out and the flap or curtain is unfolded downward toward the brim, said ventilating-space will be covered.

9. An article of head-gear comprising a metallic brim, a band or rim extending upward  
15 therefrom and having a plurality of sockets

therein, a crown-frame designed to be seated in said sockets, a waterproof covering for said crown, said covering having a band provided with lacing-eyelets, and a lacing-cord for securing the covering to the rim or band of  
20 the brim, and a covering for the brim and its band.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JEREMIAH J. CURTIS.

Witnesses:

R. B. CAVANAGH,  
JAS. H. GRIFFIN.