Nov. 1, 1932. R. MALCOM 1,885,745

HELMET

Filed April 9, 1931

Fig. 1.

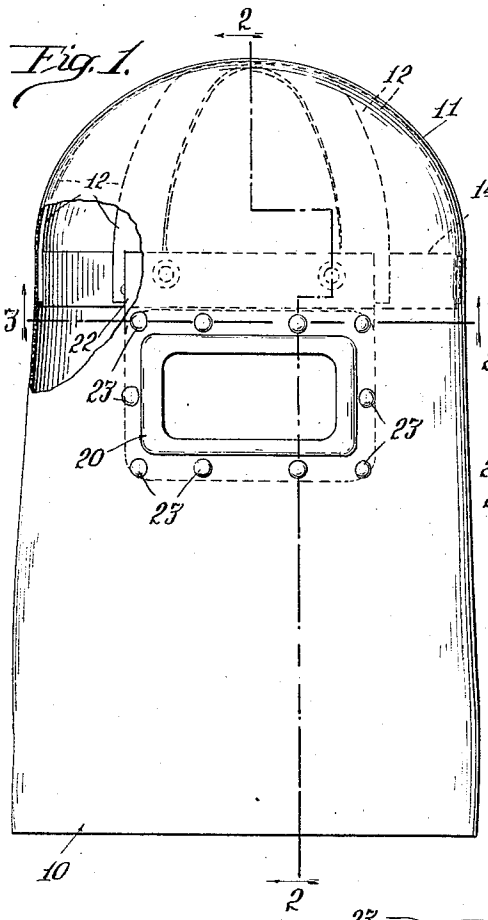


Fig. 2.

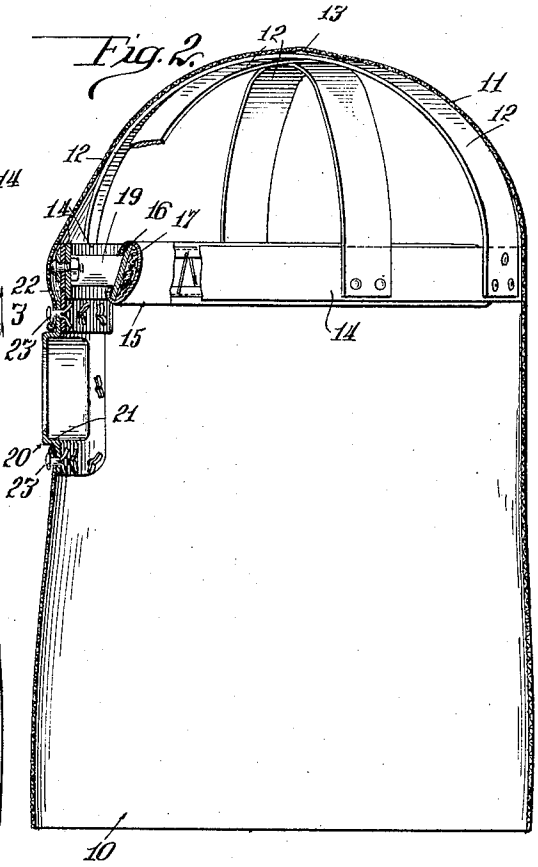
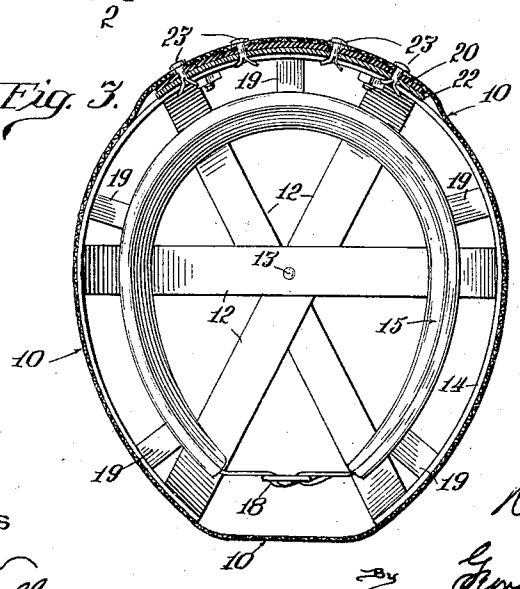


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE

ROBERT MALCOM, OF CHICAGO, ILLINOIS

HELMET

Application filed April 9, 1931. Serial No. 528,795.

My invention relates to a helmet composed of a head fitting frame portion and a head and face hood portion or cloth covering adapted to loosely fit over the head so as to completely cover the same; the head fitting frame portion being provided with a suitable lens holding frame. The invention has for its object the provision of a helmet simple and inexpensive in construction and wherein the head fitting frame has the lens holding frame secured thereto and the head covering cloth portion is so secured to the head frame and to the lens frame so as to be easily removed therefrom to permit renewal or replacement of the covering cloth from time to time.

The objects and advantages of my invention will be readily apparent from the detailed description of the accompanying drawing, wherein:

Figure 1 is a front elevation of my improved helmet.

Figure 2 is a vertical sectional view taken substantially on the line 2—2 of Figure 1.

Figure 3 is a cross sectional view taken on the line 3—3 of Figure 1, as viewed by the arrows.

The invention pertains to a type of helmet more especially intended for use by artisans engaged in spraying paint whereby the face, head and neck of the user will be fully protected against the fine paint particles, especially with certain types of paint which are not readily removed without the use of a suitable solvent.

My invention contemplates a covering of rather inexpensive material shaped into an elongated tubular bag form closed at the upper end and removably secured to the head gear or skeleton head frame to enable the cloth portion to be readily removed and replaced when it has become more or less covered with paint.

The covering, which is shown at 10, is preferably of a rather loose woven cloth, of the type known as cheese-cloth, which permits passage of sufficient air therethrough to enable the user to properly breathe, while at the same time being rather inexpensive and preventing passage of foreign matter therethrough.

This head covering is readily made from one or more strips of cloth, cut to proper length and stitched or sewed together along the longitudinal edges into tubular or open ended bag form and the upper end preferably by means of proper darting, is sewed together to form the closed, substantially semi-spherical top portion 11 which is adapted to fit the top of the head. The cloth portion 10 is preferably of such length that the lower end will rest on the shoulders of the user, thus completely covering the head, face and neck of the wearer, and in view of its yielding nature will fold into more or less close contact with the wearer's body so that free upward passage of foreign matter through the lower end is prevented.

In order to properly maintain the covering 10 in proper position on the head and to cause it to be held sufficiently away from the head so as to permit proper air circulation therein, I provide a suitable head gear. In the particular exemplification shown in the drawing, this head-gear consists of flat strips of stiff material 12, preferably fibreboard which is capable of flexing, arranged in the criss-cross manner more clearly shown in Figure 3 and preferably riveted or otherwise suitably secured together at the lapping point, as shown at 13. The ends of these strips are bowed downwardly and secured to an encircling strip 14 which maintains the strips 12 in the arched or bowed form shown in Figure 2.

Arranged within the encircling strip 14 is the head band 15. This head encircling band is shown consisting of a strip of fibreboard 16 which is preferably covered with some suitable more or less soft fabric or soft leather 17.

In order to permit adjustment to different sized heads, the ends of the strip 16 and the covering 17 are not secured together at the rear of the helmet, see Figure 3; the ends of the head band being united by the strap and buckle connection shown at 18, which enables the user to adjust the buckle so as to either permit expansion of the head band or to con-

tract the same to fit his head. The adjusting buckle and strap 18 are arranged coincident with the opening between the ends of the outer encircling strip 14, as shown in Figure 3.

The headband 15 is secured to the encircling strip 14 at spaced apart points by the spacing blocks or members 19, see Figure 3. The cloth holding portion of the headgear is thus maintained in spaced relation with the wearer's head and permits air circulation therein.

The helmet in the front face is provided with a fenestra of such size as will enable the operator to have proper vision. The encircling strip 14, at the front side of the helmet, is, therefore, provided with a suitable lens or glass holding frame 20, the upper end whereof is suitably secured to the encircling strip 14.

In the particular exemplification, this glass holding frame 20 is shown of rectangular construction dished to provide the rectangular glass receiving socket or rear face 21, see Figure 2; the lens or glass being held in place in any suitable manner which will permit of the ready removal of the glass for replacement in the event of its being broken, or it becomes necessary to immerse the glass in a suitable solvent to remove the paint thereon. As this frame 20 is preferably made of metal, for the sake of lightness, I show the frame 20 secured to a strip of fibre board 22 which, in turn, is secured to the encircling strip 14, see Figures 2 and 3; the strip 22 and glass frame depending from the encircling strip 14 sufficiently to properly position the glass holding portion of frame 20 opposite to the eyes of the wearer.

The cloth portion 10 of the helmet is provided with a cut out portion to receive the forwardly pressed glass holding portion of frame 20, see Figures 1 and 2; and the cloth portion 10 is preferably removably secured to the glass holding frame by suitable brads or staples, as shown at 23, which pass through the cloth and suitable holes formed in the metallic glass holding frame.

This prevents improper shifting of the cloth relative to the frame 20, and the method of fastening (the only fastening for the cloth portion) enables the cloth portion 10 to be easily removed from the headgear and fenestra; while the head fitting band 15 will maintain the helmet in proper position on the head.

Where the helmet is used in paint spraying operations, the cloth portion in time will become more or less covered with paint and consequently close the interstices of the fabric against proper air passage therethrough. It is, therefore, essential to provide a construction which will permit the cloth portion to be quickly and easily removed by simply flexing and withdrawing the staples 23, permitting the soiled cloth portion to be replaced by another hood portion without the expense of an entirely new helmet, namely of the more expensive head gear and lens holding frame portion; as the cloth hood portion 10, as previously stated may be made of comparatively inexpensive cheese-cloth.

What I claim is:

A helmet of the character described comprising a head encircling split band whose ends are provided with straps for adjusting said band to the head, a skeleton head frame adapted to be disposed over the head with the lower end of the frame supported in spaced relation with the head band, a dished glass-holding frame provided with marginal flanges thereabout having a plurality of openings, the dished portion of said frame being adapted to receive a lens from the rear side thereof, while the top flange is removably secured to the skeleton frame so as to depend therefrom, a cloth hood loosely disposed over and independent of said skeleton frame and provided at the front with an opening to fit about the dished portion of the glass-holding frame and to lap the forward sides of the frame flanges, and removable means disposed through the hood and through the openings in the flanges of the glass-holding frame whereby the cloth hood is removably secured in place.

ROBERT MALCOM.