Feb. 1, 1927. 1,616,187

H. R. HART

HELMET

Filed July 22, 1925

Fig. 1.

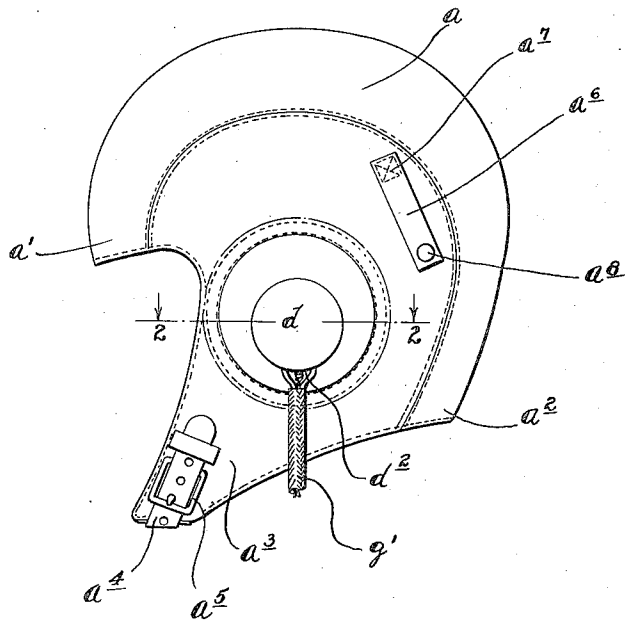
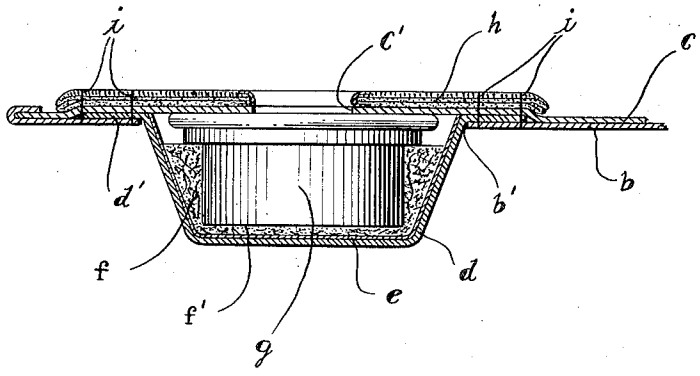


Fig. 2.



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Patented Feb. 1, 1927. 1,616,187

UNITED STATES PATENT OFFICE.

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HELMET.

Application filed July 22, 1925. Serial No. 45,172

This invention relates to helmets such as are adapted to be worn by aviators. One object of the invention is to provide a helmet which may be readily put on and taken off, which shall be of warm and durable material for flights at high altitudes and cold climates and which may be so secured to the head of the wearer as to be incapable of displacement and of such snug fit as to prevent the entrance of cold air around the edges. To this end the helmet is formed of pliable leather with an inner covering of warm soft material such as chamois and is adapted to be secured by adjustable devices under the wearer's chin. Another object of the invention is to permit communication with the aviator unaffected by the noise of the aircraft engine. To this end provision is made for inclusion in the helmet of head phones suitably insulated against noise and cold and cushioned with respect to the wearer's head and also against exterior shock. More particularly the helmet has a head portion comprising an outer cover of pliable leather formed with ear openings and a lining formed with ear openings of lesser diameter but in register therewith surrounded by cushions, said openings being closed outwardly by cup-shaped outer covers of moulded leather papier mâché or the like formed with a rim to underlie the edges of the openings in the outer covers and containing sound proof linings of zinc foil and sponge rubber bearings for head phones. In order that the invention may be clearly understood and readily carried into effect the same will now be described more fully with reference to the accompanying drawings illustrating a preferred embodiment thereof in which:

Figure 1 is a view in side elevation of the aviator's helmet according to the present invention.

Figure 2 is a detail sectional view taken in the plane indicated by the line 2—2 in Figure 1 and looking in the direction of the arrows and showing the manner of incorporating a head phone with the helmet.

The helmet is preferably formed with a head portion a to include the entire head from the forehead at the front as at a' to the nape of the neck as at a^2 at the rear and is provided with cheek portions a^3 adapted to extend beneath the wearer's chin and to be secured by a strap a^4 and a buckle a^5. Loops a^6 may be provided at convenient points upon the head portion through which the strap, not shown, of goggles or a mask may be positioned. These loops are preferably sewn to the head portion at one end as at a^7 and releasably secured as by snap fasteners a^8 at the other end for convenience in adjusting the face covering. The head portion is preferably formed of an outer covering b of pliable leather and an inner lining c of warm flexible soft material such as chamois. The outer covering b may be formed with an ear opening b' and the inner lining c with an ear opening c' of lesser diameter than the opening b' but in register therewith. A closure d for the opening b' may be formed of moulded leather and may be cup-shaped in form with a rim d' adapted to underlie the edges of the opening b' and extend between the covering b and the lining c. Within cup-shaped portion d there may be disposed a sound proof lining of zinc foil e and within the sound proof lining may be disposed cushioning material, such as sponge rubber, indicated in general at f and formed with a recess f' to receive a head phone g adapted to register with the opening c' in the lining. A suitable aperture d^2 may be formed in the lowermost portion of the cup d for the passage of wiring g' for the head phone. Obviously a head phone is provided for each ear of the wearer. Surrounding the ear opening c' and inwardly thereof there is illustrated a cushion h which may conveniently be formed of several layers of chamois secured in part by the same stitches i securing the lining, rim d' and cover b together.

It will thus be seen that a helmet has been provided for an aviator, for instance, which is not only warm, comfortable and durable but is also capable of having included therein ear phones which will serve for communication between occupants of the same machine or for radio communication between the pilot and a distant station. By securing the chin straps to the outer casing the tension therein does not cause added pressure to the head phones on the ears.

Various modifications may be made in the composition and configuration of the cooperating elements forming the subject mat-

ter of the present invention and no limitation is intended by the foregoing description and illustrations except as indicated in the accompanying claim.

What I claim is:

In a helmet in combination with head phones carried thereby a head portion comprising an outer covering of pliable windproof material formed with ear openings, an inner lining of soft material formed with ear openings in register with but of less diameter than the first named openings and overlying the head phones, a cup-shaped closure for each opening of non-pliable material formed with a rim portion disposed between the outer covering and the inner lining, a cup-shape re-enforcement disposed within each cup-shaped closure, a resilient cushioning bearing for a head phone disposed within each re-enforcement to permit the head phones to lie wholly within the closure, pads surrounding, respectively, the openings in the lining interiorly thereof and chin straps secured to the outer covering whereby tension in the straps is taken up by the outer covering and pressure of the phones on the ears is relieved.

This specification signed this 20th day of July A. D. 1925.

HENRY RIDGEWAY HART.