H. R. HART.

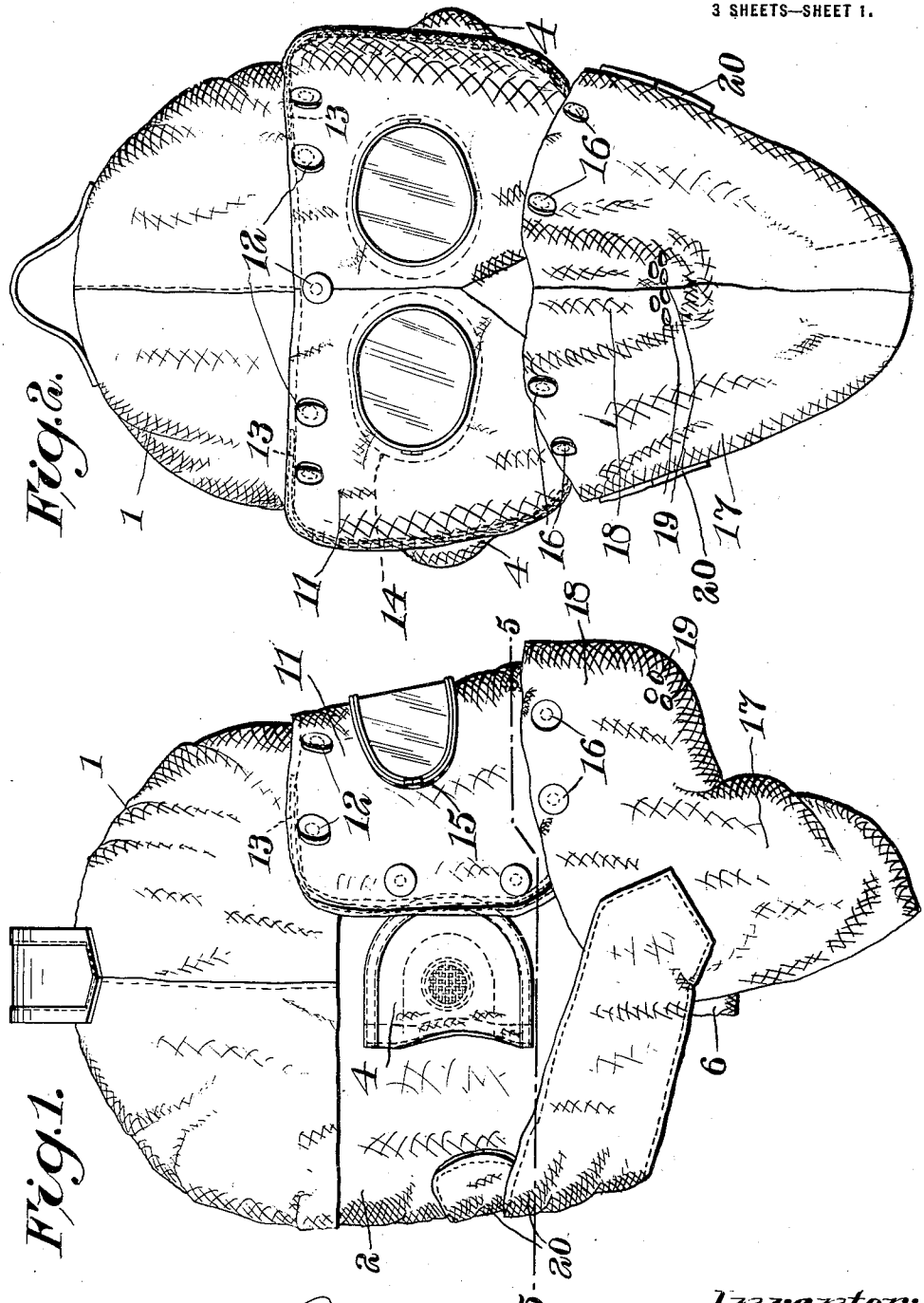
HELMET FOR USE OF AVIATORS AND THE LIKE.

APPLICATION FILED APR. 7, 1917.

1,251,657.

Patented Jan. 1, 1918.

3 SHEETS—SHEET 1.



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3 SHEETS—SHEET 2.

Fig.3.

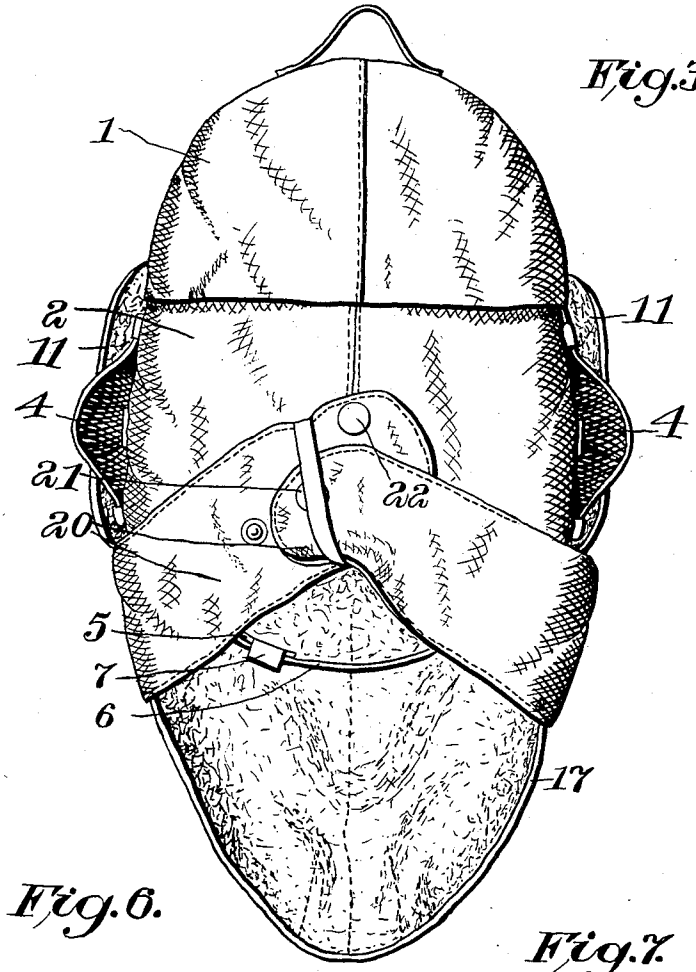


Fig.6.

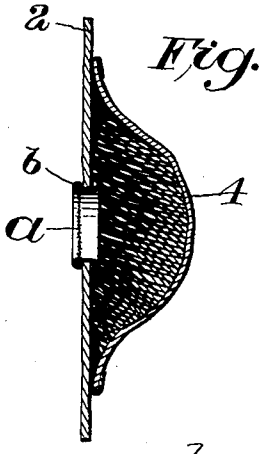
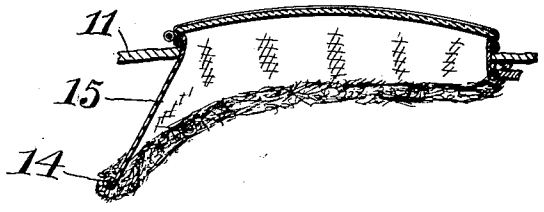


Fig.7.



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3 SHEETS—SHEET 3.

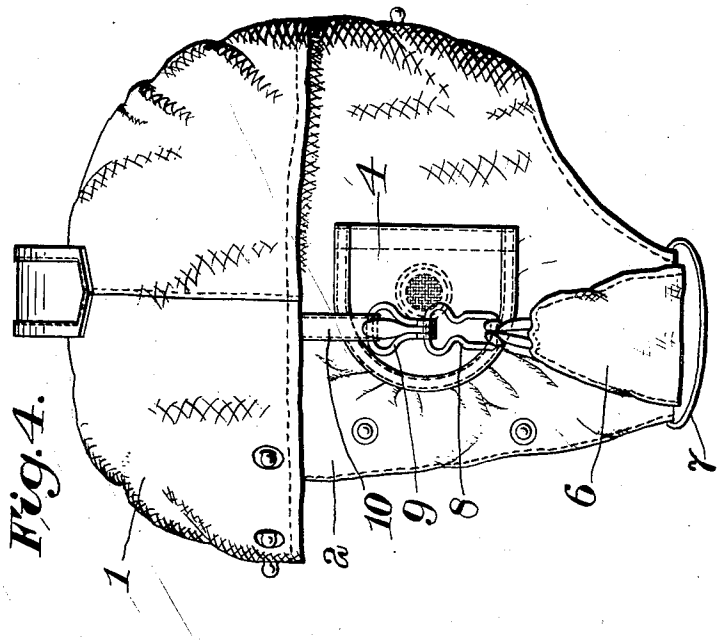


Fig. 4.

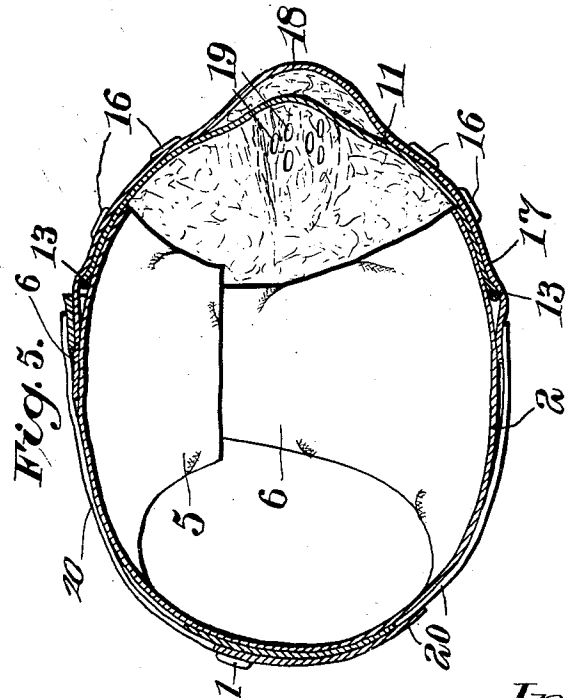


Fig. 5.

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UNITED STATES PATENT OFFICE.

HENRY RIDGEWAY HART, OF NEW YORK, N. Y.

HELMET FOR USE OF AVIATORS AND THE LIKE.

1,251,657. Specification of Letters Patent. Patented Jan. 1, 1918.

Application filed April 7, 1917. Serial No. 160,396.

To all whom it may concern:

Be it known that I, HENRY RIDGEWAY HART, a citizen of the United States, and resident of New York, N. Y., have invented certain new and useful Improvements in Helmets for Use of Aviators and the like, of which the following is a specification.

The invention consists in the features and combination and arrangement of parts hereinafter described and particularly pointed out in the claims.

In the accompanying drawings:

Figue 1 is a side elevation of the helmet or head gear.

Fig. 2 is a front view.

Fig. 3 is a rear view.

Fig. 4 is a side view of a portion of the head gear.

Fig. 5 is a sectional plan approximately on line 5—5 of Fig. 1.

Fig. 6 is a detail view in section of one of the ear protectors.

Fig. 7 is a detail view showing how the goggle is mounted.

In these drawings 1 indicates the helmet proper or that portion which is to cover the crown or top of the head, this being formed of soft leather or like material, suitably lined with chamois or like material. This crown has connected thereto a depending portion or skirt 2, which extends from points a little in front of the position of the ears downwardly to cover the sides of the face and a portion of the neck, the skirt extending around at the back to protect the back of the head and neck. This skirt is sewed or otherwise secured to or formed with the crown portion of the helmet and it is provided with screen covered openings at the positions of the ears. The screen members may be formed of wire gauze *a*, carried by a ring *b*, which is held to the flexible leather in any suitable way, the ring preferably being of metal. These ear ventilating openings are protected by shields 4 consisting of leather or other material of substantially semi-circular form sewed to the skirt along the edge of the shield, the said shield inclining rearwardly and outwardly in respect to the skirt, so that its rear edge stands away from the skirt a sufficient distance for the ventilating effect and transmission of sound. This shield in cross section is substantially of arched form and its rear edge lies some distance in rear of the screened ear opening to afford secure protection against the rush of air which is experienced by aviators or motor drivers. The skirt has a depending portion 5 at the front of one of its sides and at its other side it is formed with an extension 6, which is adapted to pass under the chin of the user up under a retaining loop 7 on the depending portion 5, the end of the extension having a metallic loop 8 adapted to engage any suitable form of clasp or catch 9, and this catch or clasp is preferably supported by a short strap 10 sewed into the seam between the main top portion or crown of the helmet and the depending skirt.

A mask 11 is provided to cover the face, this mask being secured to the crown portion of the helmet by snap fasteners at 12, and like snap fasteners secure the ends or side edges of the mask to the front edges of the depending skirt. The mask is formed of flexible material, such as leather lined with chamois and it may be reinforced at its side edges by wire at the points 13, said wire reinforce lying within a bead along the edge of the mask member in order to stiffen the mask at these points, and this stiffening may be continued along the entire lower edge of the mask. This mask is also provided with eye shields or glasses which consist of frames suitably held within openings in the mask, said frames carrying transparent material as celluloid or glass, which may be colored to modify the light and remove the glare from the eyes. The eye shields also have inner resilient frames 14 adapted to fit snugly about the eyes, these frames being suitably padded to make a soft contact and between these inner frames and the outer frame comprising the eye shield flexible material 15 is provided, which will allow the inner frame to yield in relation to the outer frame while forming a connection between them. This mask is provided with snap fasteners at 16 adapted to receive a shield 17 which is designed to cover the lower part of the face and neck. This shield at its upper edge overlies the outer or front face of the mask, being held thereto by two snap buttons on each side of the vertical center of the mask and this shield is provided with a protuberant portion 18 adapted to accommodate the nose and lower part of the face ventilating or breathing openings being provided by eyelets at 19 on the lower side of this protuberance. The shield at the center of its upper edge stands away slightly from the underlying part of the mask, this arrange-

ment being afforded by the position of the snap buttons on either side of the protuberance and this provides for ventilation, while shielding the face of the operator against the direct rush of air, the said central portion of the protuberance while standing away from the mask, overlying the same, as above pointed out.

This shield from the central portion of its upper edge curves downwardly and rearwardly and extends a considerable distance below the lower edge of the mask portion of the head gear so as to protect the neck and upper chest region and the sides of the neck. The shield is held in proper position by straps or extensions 20 attached to the sides of its depending portion and extending around the back of the neck of the user, the two ends of the straps or extensions being secured together by snap fasteners 21, and these ends may be secured to the back of the depending skirt 2, for instance, by a snap fastener at 22 on one of the strap ends engaging a complemental part on the skirt.

It will be seen from the above that the head gear is composed of separable members and more or less of the complete gear can be used as may be desired. Thus the crown with the skirt can be used without the mask and the crown and mask can be used without the lower shield portion.

What I claim is:

1. In combination a crown portion having a skirt extending down the back of the head and down the sides of the face but terminating in rear of the front of the crown, a mask portion having eye shields and detachably secured to the front edge of the crown and to the front edges of the skirt, and a shield for the neck detachably secured to the lower edge of the mask and depending therefrom.

2. In combination a crown portion having a skirt, a mask detachably secured to the crown portion and skirt and a shield detachably secured to the mask and depending therefrom, substantially as described.

3. In combination the crown portion having a mask portion attached thereto, a shield portion detachably connected with the lower front edge of the neck portion and depending therefrom and having a front protuberant portion at its upper part adjoining the lower edge of the mask for the lower part of the face with the main part of said shield extending downwardly, rearwardly and laterally from said protuberant portion, substantially as described.

4. In combination the crown portion having a mask portion attached thereto, a shield portion detachably connected with and depending from the mask portion and having a front protuberant portion for the lower part of the face with the main part of said shield extending downwardly, rearwardly and laterally from said front portion, a skirt depending from the crown along the sides and back of the head and straps attached to the rear ends of the lower shield and connected with the back of the skirt, substantially as described.

5. In combination with the crown and mask portions, a shield attached to the lower front edge of the mask and depending therefrom, said shield having a narrow portion at the middle of its front and adjacent the portion of the nose and mouth and merging into a portion inclining downwardly and rearwardly under the position of the chin, said shield having side portions extending rearwardly, and means for holding said side portions in place, connected therewith at their rear ends and extending around to the back of the neck and detachably secured together.

6. In combination a crown and mask with a shield depending from the mask, said shield being detachably secured to the mask on the outside of and above its lower edge, the middle portion of the said shield at its upper edge being bulged forwardly, in relation to the lower edge of the mask and thereby spaced therefrom, substantially as described.

7. In combination, a crown portion having a skirt depending along the back and sides of the head, and having fastening means to pass under the chin, a mask detachably secured to the crown at its front part and to the front parts of the depending skirt, and a shield detachably secured to and extending below the mask and having rearward extensions with means for detachably securing the same to the skirt, substantially as described.

In testimony whereof, I affix my signature.

HENRY RIDGEWAY HART.