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H. R. HART

FLYING SUIT

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Fig. 1.

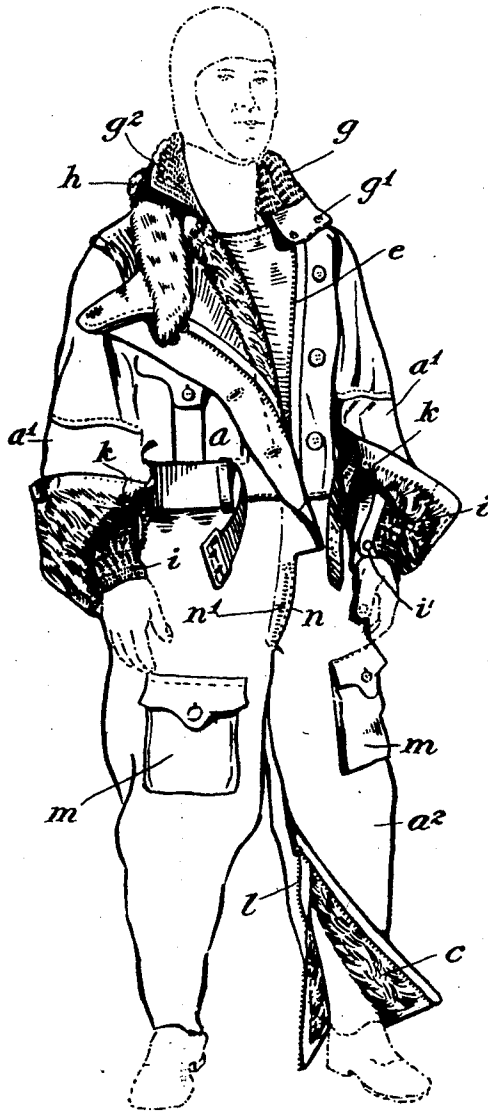
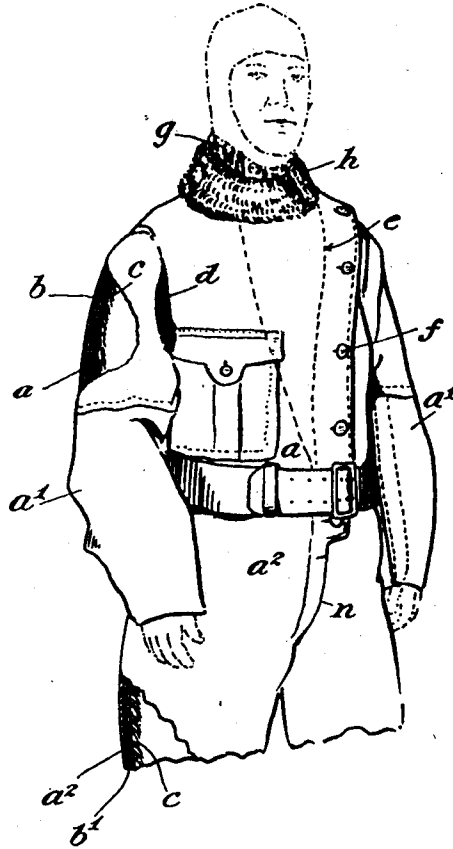


Fig. 2.



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FLYING SUIT.

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With the development of flying greater attention has been given constantly to the provision of suits which would best meet the conditions and contribute to the convenience and protection of the aviator. Many changes have been made from year to year in such suits as experience has shown the necessity therefor. The object of the present invention is to provide a flying suit which shall incorporate improvements designed to meet in a durable and satisfactory manner the diverse conditions which aviators meet, in a garment which will be most satisfactory. Warmth is, of course, a primary consideration and to achieve this protection must be afforded against not only the penetrating atmosphere but the high wind velocities to which the aviator's body is exposed to a greater or less degree. Freedom of movement is another important consideration both for the legs and the arms. Convenience in dressing and undressing and in readily securing the exposed openings in the suit need also be given the utmost attention and the present improvements are believed to take care of such conditions with the highest degree of convenience and security. The improvements are incorporated in a single unitary flying suit the construction of which will appear in greater detail in connection with the description of the drawings wherein:

Figure 1 is a view showing the improved suit on the figure of an aviator parts being turned back in the interest of clearness.

Figure 2 is a somewhat smaller view with parts broken away to show the interior construction and other parts being united to show the manner in which they are used.

The suit itself throughout comprises three thicknesses of material each one of which is selected in accordance with its physical properties to serve a particular function, the three when thus associated being adapted to serve conjointly the more general function of protection in the most satisfactory way yet known. In thus combining the materials recognition has been given of the different conditions obtaining in and around the aviator's body and in and around his legs since the body is more exposed to wind currents at high velocities than the legs and the legs require ordinarily a greater degree of freedom than the body. The body portion of the suit is built up of three layers comprising generally an outer layer of very flexible

leather *a*, an intermediate layer of chamois or oilsilk *b* and an inner layer *c* of suitable fur. The leather itself naturally contributes to a high degree of wind protection and the chamois or oilsilk best exclude moisture and dampness while the fur near the body affords the degree of warmth and comfort to be derived only in this way. Where the sleeves of the forearm of the aviator need to be somewhat more flexible the outer layer *a'* thereof is made preferably of a suitable cloth such as gabardine. Between the sleeves and the body proper of the suit are interposed cloth bellows *d* especially around the arm pits so that a large degree of freedom at these points is assured while no warmth or strength is sacrificed. The suit is open down the front but is adapted to be quickly and conveniently closed with a single movement of the arm by a hookless fastener *e* now known commercially which extends upward and serves to intimately unite the two parts of the suit. In addition to this hookless fastener conventional buttons *f* and button-holes are also provided for sightliness and additional protection. Around the neck a wool comforter *g* is attached inside a fur collar *h* the wool comforter carrying co-operating spring posts *g'* and sockets *g''* for ready engagement in a known manner. Woolen wrist mufflers *i* are secured within the open ends of the sleeves and are adapted to be fastened by suitable fastening means *i'* which may consist of spring studs and sockets. The sleeves are open longitudinally adjacent their lower ends but may be quickly and conveniently closed after the woolen mufflers *i* are secured by means of hookless fasteners *k* of the same character hereinbefore referred to. When the sleeves are thus closed by the hookless fasteners air is effectively excluded therefrom. From the description given of the upper part of the suit it will be appreciated that it is very tight and warm but with all may be conveniently fastened and unfastened when put on or taken off. The materials used are best adapted to meet the conditions both with respect to warmth, durability and flexibility. The legs in the suit of an aviator need provide a greater degree of freedom and are less exposed to the high wind currents than the body portion. To meet different conditions the outer layer *a''* of material is of cloth such as gabardine rather than leather while the intermediate layer *b'* is preferably chamois and the inner

layer *c* is fur. Adjacent the bottoms of the legs on the inner side thereof are openings to facilitate the application and removal of the suit, these openings being most conveniently closed by hookless fasteners *l* of the same known type. On the fronts of the legs may be provided pockets *m* for notebooks and the like. Another opening *n*, if desired, may also be secured by a hookless fastener *n'* as will be apparent. A belt or girdle may encircle the suit both for strength and appearance and conceal the line of union between the leather *a* of the body and the gabardine *a'* of the legs portion.

15 The particular features disclosed herein are of importance in contributing to the ac-

ceptance of the illustrated suit as the present standard for aviators and each contributes its part while all function to insure the broad result desired.

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What I claim is:

In an aviator's unionall suit a body portion having an outer layer of leather, an intermediate layer of moisture excluding material, and an inner layer of fur, and a legs 25 portion united with the body portion and having an outer layer of cloth, an intermediate layer of moisture excluding material, and an inner layer of fur.

This specification signed this 27 day of June A. D. 1925.

HENRY RIDGEWAY HART.