A. E. LOGAN.

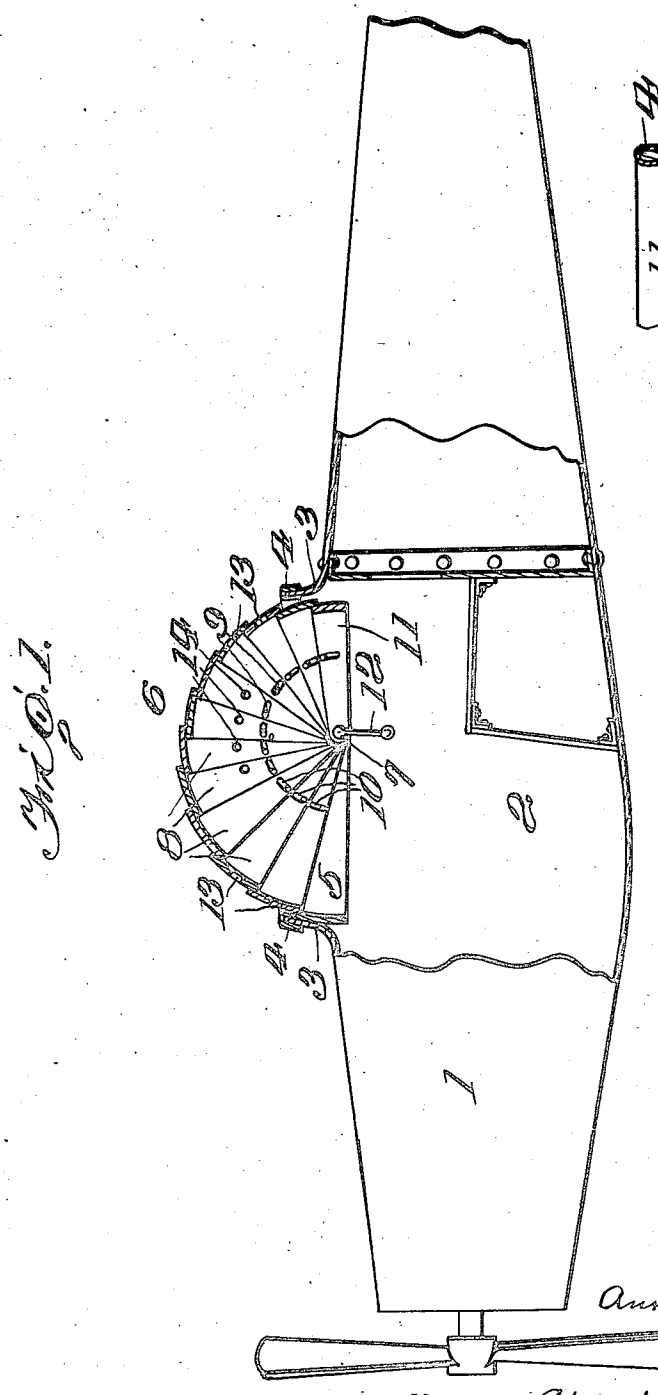
PROTECTIVE HOOD FOR AEROPLANE PILOTS.

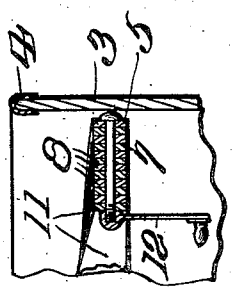
APPLICATION FILED APR. 23, 1918.

1,327,339.

Patented Jan. 6, 1920.

2 SHEETS—SHEET 1.





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2 SHEETS—SHEET 2.

Fig. 2.

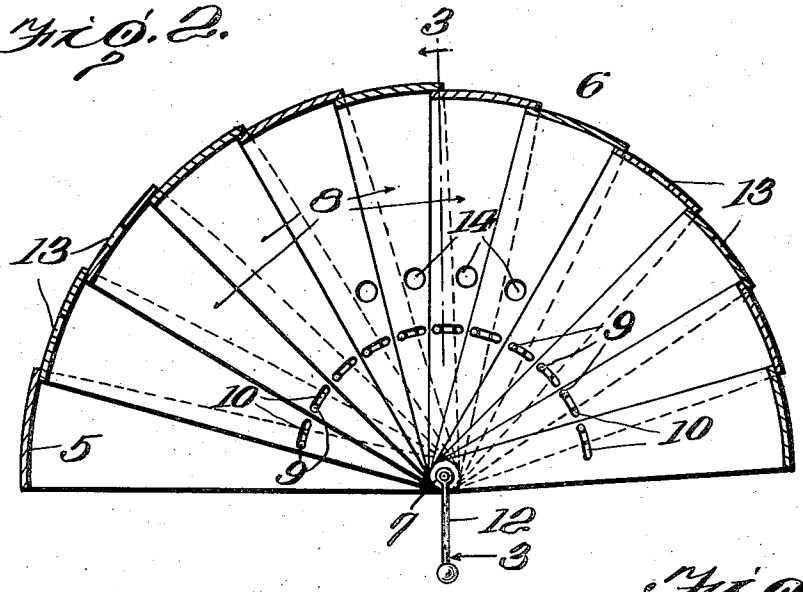
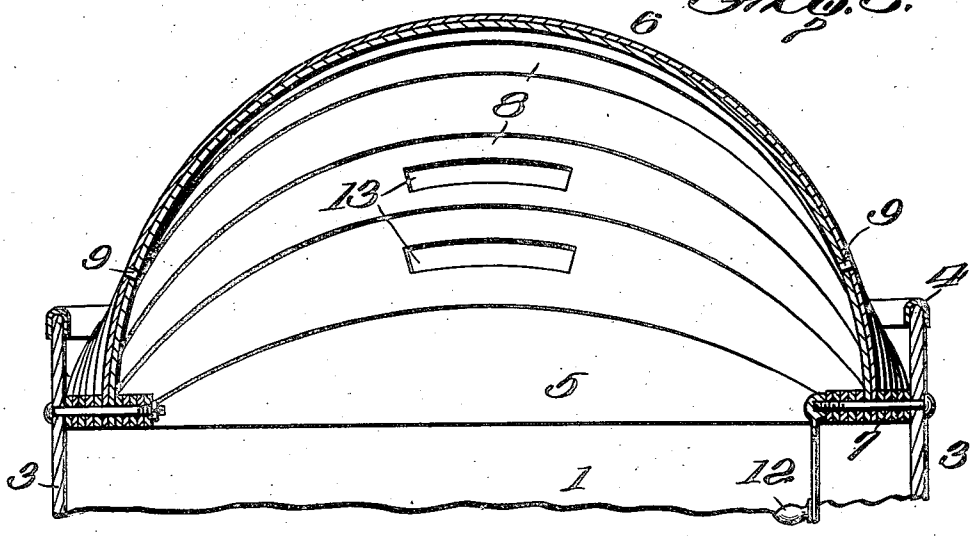


Fig. 3.



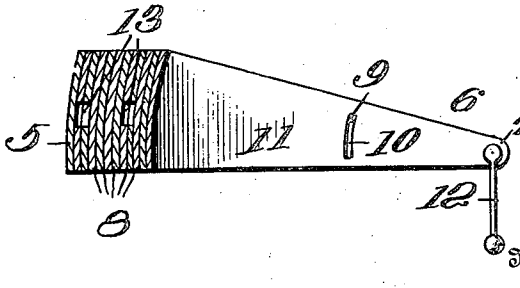


Fig. 4.

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UNITED STATES PATENT OFFICE.

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PROTECTIVE HOOD FOR AEROPLANE PILOTS.

1,327,339. Specification of Letters Patent. Patented Jan. 6, 1920.

Application filed April 23, 1918. Serial No. 230,257.

To all whom it may concern:

Be it known that I, ANNA E. LOGAN, a citizen of the United States, residing at Ridgewood, in the county of Bergen, State of New Jersey, have invented certain new and useful Improvements in Protective Hoods for Aeroplane Pilots, of which the following is a description, reference being had to the accompanying drawing and to the figures of reference marked thereon.

My invention relates to improvements in protective hoods for aeroplane pilots.

The object of my invention is to provide a collapsible hood adapted to completely cover the cock-pit of an aeroplane car, so constructed and arranged that the operator of the aeroplane can readily open or close the same with one hand.

Another object of my invention is to provide a collapsible hood adapted to fold wholly within the body of the car, so that it will not interefere with the normal operation of the machine when not in use, and will not obstruct the view of the operator.

A still further object of my invention is to provide a hood of this character which is simple in construction and operation, and at the same time provide a hood which can be attached to the car of the ordinary aeroplane without any modification thereof.

In the accompanying drawings,—

Figure 1 is a side elevation, partly in section, of an aeroplane car, showing my improved hood applied thereto covering the cock-pit;

Fig. 2 is an enlarged vertical sectional view, showing more fully the means for connecting the leaves of the hood;

Fig. 3 is a transverse vertical section, taken on the line 3—3 of Fig. 2;

Fig. 4 is a longitudinal vertical sectional view, showing the hood in its forwarded folded position; and

Fig. 5 is a detail sectional view showing the rigid leaf forming the bearings for the pivots.

Referring now to the drawings, 1 represents the body of an aeroplane which may be of any desired structure, having the usual cock-pit 2, in which the operator is located during the normal running of the machine. While I have shown this specific form of body, it will be understood that the same can be varied and yet my hood be applied thereto. Surrounding the cock-pit 2 the car is provided with the usual upwardly turned flanges 3, having a covering or binding of leather or rubber 4, which forms a cushion and prevents injury to the operator in entering or leaving the car.

Secured to the flange 3 at the front of the cock-pit 2 is one leaf 5 of my improved hood 6, which as shown is of a semi-circular form, gradually tapering inwardly to the point, through which passes a pivot 7. The pivot 7, as shown, also passes through the flange 3 of the cock-pit, which forms a more rigid bearing for the pivot and upon which the numerous other leaves are pivotally mounted and which I will now describe.

The pivot 7 has a series of leaves 8 pivotally mounted thereon, of the same shape as the leaf 5 except that each succeeding leaf is slightly smaller in circumference than the preceding one, so that they will telescope one within the other, as shown in Fig. 4 of the drawings. The leaf 5 is provided on its inner face adjacent its upper edge with inwardly extending pins 9 which enter slots 10 in the succeeding leaf, whereby the leaves are adapted to telescope and yet are prevented from moving too far or beyond the preceding leaf, as fully shown in Fig. 2 of the drawings. Each of the several leaves composing the hood, is provided with the slots and pins, so that when the leaves are extended a solid protective hood is formed completely covering the cock-pit, as shown in Fig. 1 of the drawings.

The innermost leaf 11 is rigidly secured to the pivot 7, and said pivot on the inside of the leaf is provided with a crank or handle 12, rigidly secured thereto, by means of which the pivot is rotated in the flange 3 of the car. By having the leaf 11 rigidly secured to the shaft 7 it will be seen that when the numerous leaves are in the position shown in Fig. 3 of the drawings, the turning of the handle 12 moves the leaf upwardly. When the pins of the next leaf reach the ends of the slots, said next leaf is moved upwardly and each succeeding leaf moves the next leaf through the medium of the slots and pins, until they are all in their telescoped position, one within the other, as shown in Fig. 4 of the drawings. When in the last mentioned position it will be seen that the whole hood is below the flange surrounding the cock-pit and is out of the way of the operator.

The leaves are provided with elongated slots 13 so that when the hood is opened up, the operator can see both fore and aft. The leaves are also provided with round openings 14, so that the operator can see to either side.

While I have shown the pivot 7 as extending through the flange surrounding the cock-pit, it will be understood that it need not do so, but could end on the inside. The leaf 5 secured to the flange would form the bearing for the pivots and the operation would be the same. The leaves, as heretofore stated, are operated in succession by the innermost leaf rigidly secured to the pivot, so that all that is necessary to either open or close the hood is to oscillate the pivot through the medium of the handle 12.

The handle 12, as shown, is at a point about midway the ends of the cock-pit and within easy reach of the operator occupying the seat 15, so that with one hand he can instantly close or open the hood and when opened up the operator is completely covered within the cock-pit.

By having the pivot 9 supported solely by the leaf 5, the hood can be completely assembled, and in attaching it to the car all that is necessary is to securely fasten the leaf 5 to the flange surrounding the cock-pit and the hood is ready for use.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. The combination of the cock pit of an aeroplane, a series of leaves pivoted together and to said cock pit and telescoping to form a hood therefor when extended, interconnections carried by said leaves whereby they open and close each other, and means for opening or closing the leaves.

2. The combination of the cock pit of an aeroplane, a series of leaves pivoted together and to said cock pit and telescoping to form a hood therefor when extended, one of said leaves being fixed to the pivot, means for oscillating said pivot, and means carried by the leaves whereby they open or close each other.

3. The combination of the cock pit of an aeroplane, a series of leaves having a common pivot on said cock pit and telescoping to form a hood therefor when extended, means for oscillating said pivot, and means connecting said leaves for folding the same or opening them by the oscillation of said pivot.

4. The combination with the car of an aeroplane, of a semi-circular leaf secured thereto at the front of the cock-pit, pivots loosely mounted in the ends of said leaf, leaves loosely mounted upon said pivots, and having pin and slot connections with each other, the inner leaf rigidly carried by the pivots, and means for oscillating one of said pivots whereby the leaf rigidly carried by the pivot is moved to cause the opening or closing of the leaves.

5. The combination with the cock pit of an aeroplane, of a series of semi-circular leaves pivoted together and to said cock pit to form a dome-shaped hood therefor when extended, and means for oscillating the pivots for opening or closing said leaves.

6. The combination with the car of an aeroplane, of a series of semi-circular leaves, pivots connecting the ends of said leaves, the outer leaf rigidly supported by the car, the inner leaf rigidly supported by the pivots, pin and slot connections between the leaves, and means for oscillating one of said pivots for opening and closing the leaves through the medium of the leaf rigidly carried thereby.

7. The combination with the car of an aeroplane, of a series of semi-circular leaves having observation openings, pivots connecting the ends of said leaves, so that they may telescope, the outer leaf rigidly supported by the car at the front of the cock-pit, the inner leaf rigidly supported by the pivots, pin and slot connections between the leaves, and a handle carried by the inner end of one of the pivots for oscillating the same for opening and closing the leaves through the medium of the rigidly carried leaf.

8. A hood of the character described, comprising a semi-circular leaf adapted to be rigidly supported, pivots carried thereby, semi-circular leaves loosely mounted on said pivots and telescoping, a leaf rigidly carried by the pivots, pin and slot connections between the leaves, said leaves having observation openings, and a handle carried by the inner end of one of the pivots for oscillating the same for opening and closing the leaves through the medium of the rigidly carried leaf.

In testimony whereof, I affix my signature.

ANNA E. LOGAN.