H. E. ENSOR AND J. SAMPSON.

HEADLIGHT.

APPLICATION FILED FEB. 23, 1921.

1,397,803. Patented Nov. 22, 1921.

FIG. 1

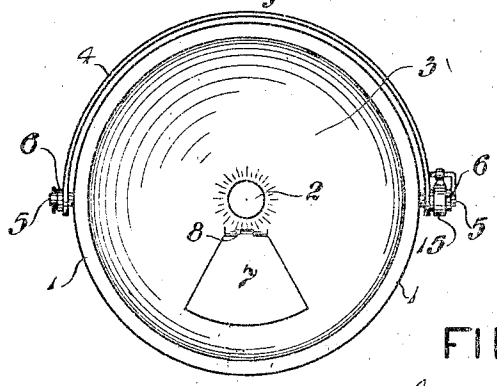


FIG. 2

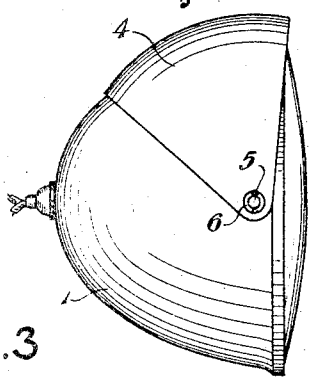


FIG. 3

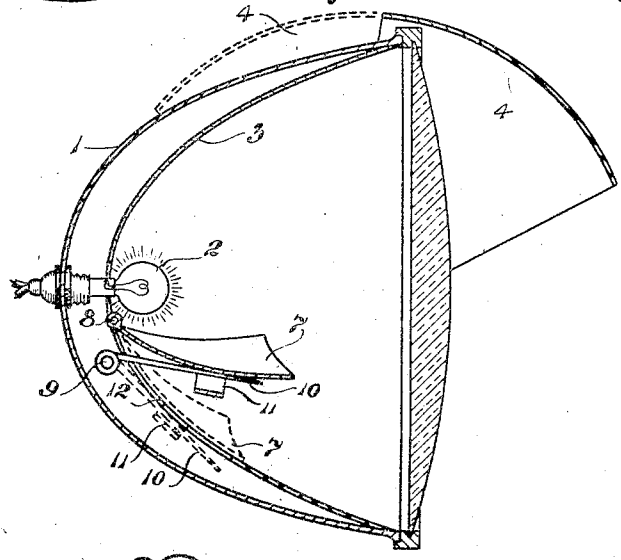
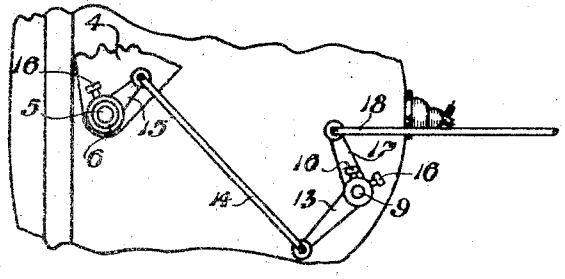


FIG. 4



INVENTORS.
Harold E. Ensor
By John Sampson
Wm. Wallace White
ATTY.

UNITED STATES PATENT OFFICE.

HAROLD EDWARD ENSOR, OF CANTERBURY, AND JOHN SAMPSON, OF SYDENHAM, CHRISTCHURCH, NEW ZEALAND.

HEADLIGHT.

1,397,803. Specification of Letters Patent. **Patented Nov. 22, 1921.**

Application filed February 23, 1921. Serial No. 447,079.

To all whom it may concern:

Be it known that we, HAROLD EDWARD ENSOR and JOHN SAMPSON, both British subjects, residing at The Vicarage Hororata, Canterbury, in the Dominion of New Zealand, and 130 Tennyson street, Sydenham, Christchurch, in the Dominion of New Zealand, respectively, have invented new and useful Improvements in Headlights, of which the following is a specification.

This invention relates to the head-lights of motor-cars, motor-cycles and the like and refers more particularly to means for controlling the light when in traffic in order to obviate the glare or dazzling effect which would otherwise be experienced by those meeting the vehicle.

It is the object of the present invention therefore to provide simple and effective means whereby, at the will of the driver, the whole of the light may be so deflected as to prevent its rays from coming in direct contact with the eyes.

In order that the nature of the invention and its construction may be clearly understood, reference will now be made to the accompanying sheet of drawings, in which—

Figure 1 is a front view of a lamp equipped in accordance with the present invention, the latter being in the inoperative position.

Fig. 2 is a side view of the same.

Fig. 3 is a longitudinal section through the lamp, upon a somewhat larger scale than the preceding figures, the device being shown in full lines in its operative position, while the inoperative position is indicated in dotted lines.

Fig. 4 is a side view of a portion of the lamp, illustrating a means of operating and controlling the parts.

(1) is the lamp-body in the interior of which is contained the usual lamp (2) and reflector (3) all as customary.

According to the present invention the lamp-body is provided with a hood or cowl (4) suitably formed from sheet metal or other suitable material and adapted to extend around and inclose the upper portion of such lamp-body.

The said hood (4) is attached to the lamp-body (1) by means of a pair of laterally disposed pivots arranged one on either side thereof and adapted to permit of such hood either occupying its normal or inoperative position, as in Figs. 1 and 2, and in dotted lines Fig. 3 or being rocked or turned to a suitable angle in a forwardly angle in a forwardly direction, as indicated in full lines Fig. 3, in order that such hood may intercept and deflect those rays of light which would otherwise extend upwardly at an angle from the front of the lamp-body.

This pivoting of the hood is preferably effected by providing at the required points upon the lamp-body, one on either side thereof, a pair of laterally projecting trunnions (5) which are received in suitable bearings in the hood which bearings may conveniently consist of a pair of outwardly projecting sleeves (6) attached to such hood.

According to the present invention also within the lamp-body and arranged at a position vertically beneath the lamp (2) is a flap or sector (7) of sheet metal.

The said flap is attached by means of a suitable hinge (8) to the reflector or other suitable portion of the lamp-body in such a manner as to permit of such flap being turned in a vertical plane upon its said hinge (8).

The arrangement is such that the said flap (7) when in its normal position, as shown in Fig. 1 and in dotted lines Fig. 2, will overlie and fit closely against the surface of the lower portion of the reflector and such flap is suitably polished or otherwise prepared in order that, when in such position it may serve the ordinary purpose of the portion of the reflector which it covers.

When required to perform its special purpose however, the said flap is turned upon its hinges (8) into such a position as to project forwardly at an angle with the surface of the reflector, as shown in full lines Fig. 3.

When in this operative position the flap serves to reflect or throw upward within the lamp-body those rays of light which would otherwise become concentrated upon the lower portion of the reflector and be projected forwardly thereby.

The means employed for operating the flap (7) consist preferably of a horizontal spindle (9) mounted in the portion of the lamp-body in rear of the reflector, such spindle (9) being provided with an arm (10) which is loosely received within a strap or saddle (11) attached to the rear side of the flap (7). The arrangement is such therefore that upon the spindle (9) being turned

in one direction the arm (10) will engage the rear surface of the flap and thus cause the latter to turn upon its said hinge into its operative position as shown in full lines Fig. 3, while by turning the said spindle in the other or reverse direction, the arm (10) will engage the strap (11) and thus return the flap to its normal or inoperative position as indicated in dotted lines Fig. 3. For the purpose of permitting of these movements the reflector (3) is formed at the required position with a suitable slot or opening (12) through which the said arm (10) and strap (11) may pass. In lieu of this construction any other suitable means may be employed for operating the flap and such means may, if desired, include a suitable spring or the equivalent adapted to turn the flap in one direction.

Suitable means are employed also for causing the hood (4) and flap (7) to turn in their forwardly or rearwardly directions in unison. As here shown Fig. 4 such means consist of an arm (13) upon the spindle (9) which is connected by means of a link or connecting rod (14) with a similar arm (15) upon one of the sleeves (6) one or both of such arms being preferably adjustable axially in order to permit of the required setting of the hood and flap in relation to each other after which such arms are adapted to be locked in place by means of set screws (16) or the like. Upon the spindle (9) or sleeve (6) is provided also another arm (17) adapted to be connected by means of a connecting-rod or the like (18) with a suitable hand-lever, foot-pedal or other means of manipulation—operable by the driver from his position within the car.

These means of inter-connecting the hood and flap and enabling such to be operated by the driver are given however merely by way of illustration and the invention must not therefore be confined to such but includes within its scope any other suitable means for the purpose.

From the foregoing description therefore it will be understood that upon the hood (4) and flap (7) being turned into their forward or operative positions the former will intercept and throw downward upon the road the light which would otherwise proceed at an angle upwardly and forwardly from the upper portion of the lamp-front, while the action of the flap is such as to reflect upward within the lamp-body those rays which, partly as the result of the action of the hood, would otherwise become concentrated upon the portion of the reflector beneath the lamp (2).

We claim:—

Means for the purpose indicated comprising the combination with a lamp-body, a reflector and lamp contained therein, of a hood pivotally mounted upon the exterior of said lamp-body and adapted when turned in a forwardly direction to intercept and throw down the light issuing from the upper portion of the lamp-front, a flap hingeably attached within said lamp-body and adapted to overlie the portion of said reflector beneath said lamp, such flap being adapted when turned upon its said hinge in a forwardly direction to extend at an angle with said reflector and to throw upward within the lamp-body the rays of light beneath said lamp, and means whereby said hood and said flap may be caused to turn in unison into their said respective forward or rearward positions.

In testimony whereof we have signed our names to this specification.

HAROLD EDWARD ENSOR.
JOHN SAMPSON.

In the presence of—
CYRIL CARLYN COATES,
SIDNEY JAMES TRELEAVEN.