H. D. PENNEY.

MASK FOR AUTOMOBILE LAMPS.

APPLICATION FILED APR. 20, 1909

929,627. Patented July 27, 1909.

Fig. 1.

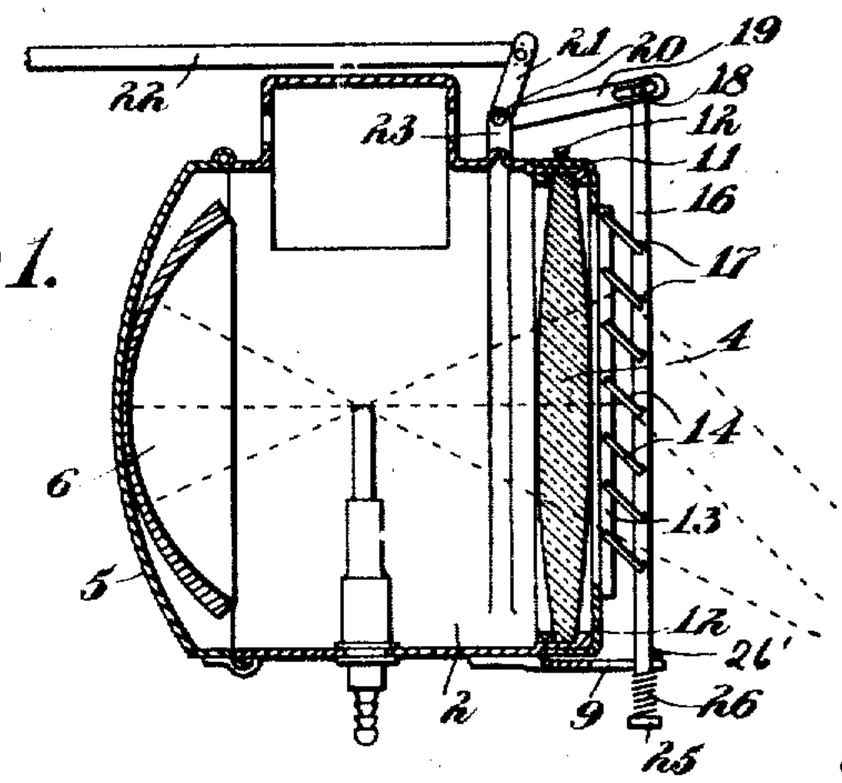


Fig. 3.

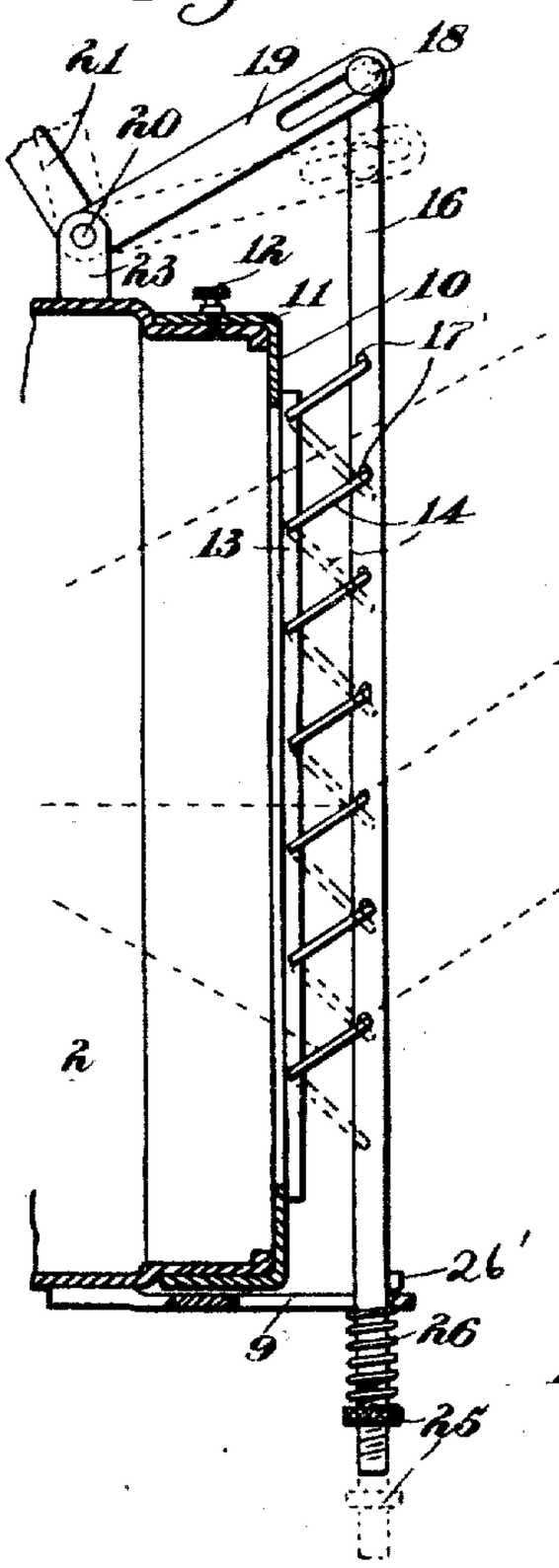


Fig. 2.

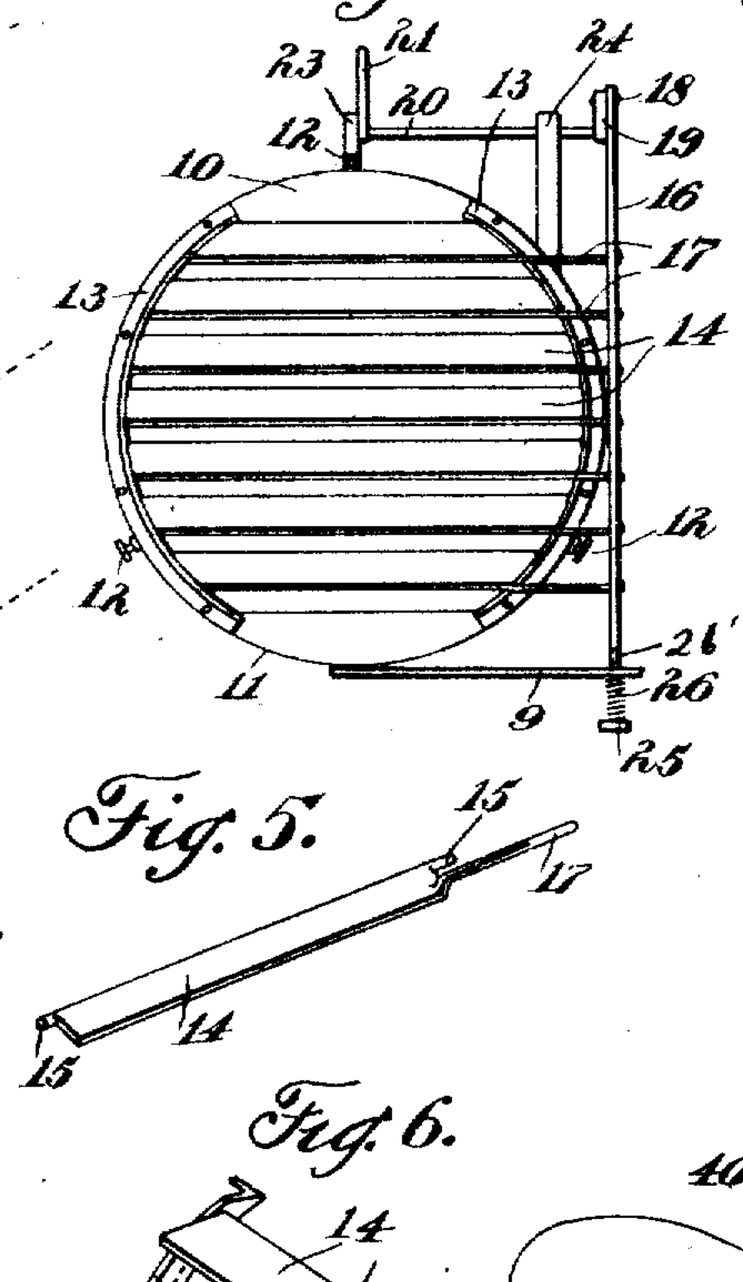


Fig. 4.

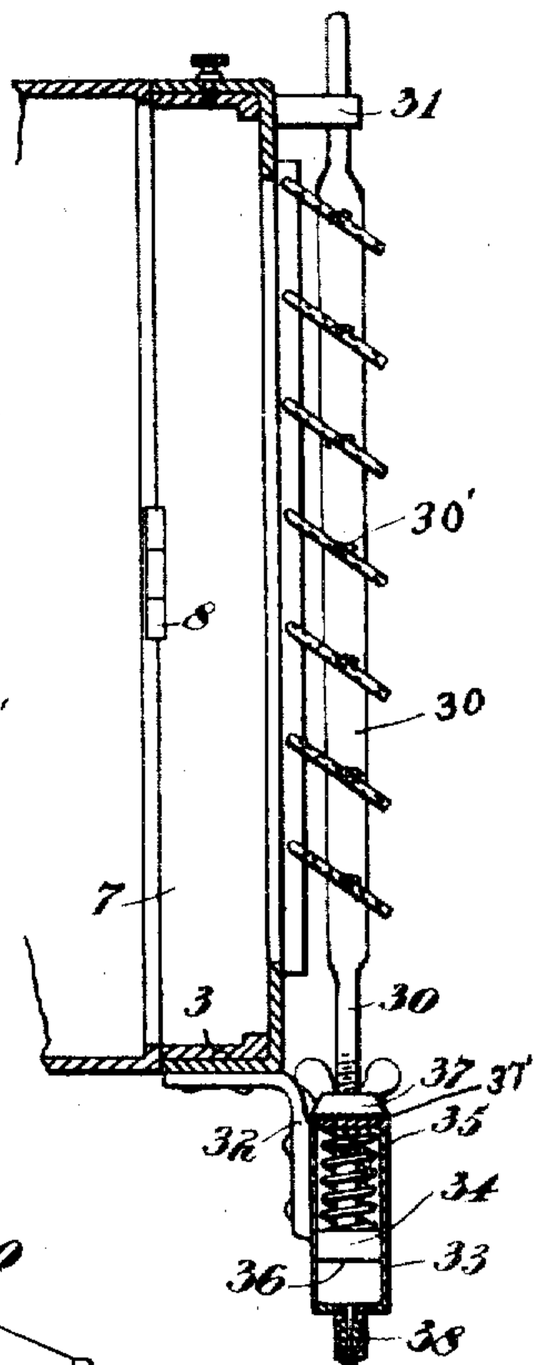
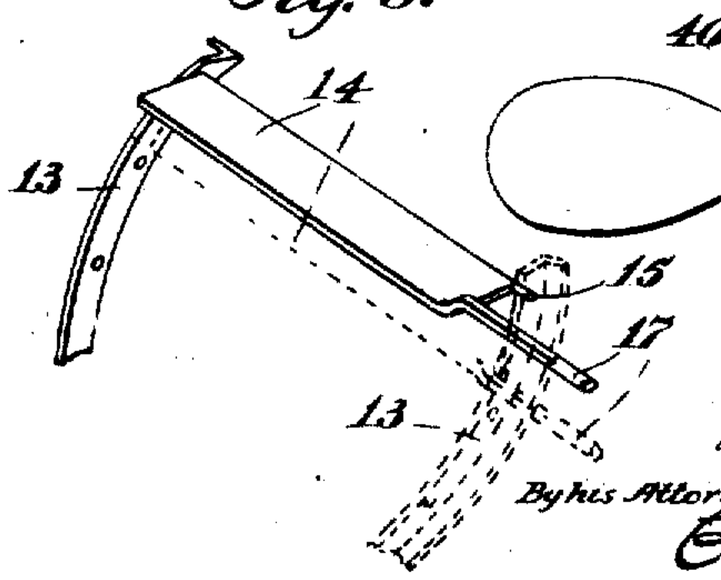


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

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MASK FOR AUTOMOBILE-LAMPS.

No. 929,627. Specification of Letters Patent. Patented July 27, 1909.

Original application filed February 6, 1909, Serial No. 476,369. Divided and this application filed April 29, 1909. Serial No. 492,964.

To all whom it may concern:

Be it known that I, HAROLD D. PENNEY, a citizen of the United States, residing in Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Masks for Automobile-Lamps, of which the following is a specification.

This invention relates to means for preventing the glare of head-lights and search-lights of motor vehicles, the object of the invention being to provide an improved mask having means which normally will be in position to effectively mask and intercept the upward rays of light thereby to prevent the blinding glare of the lamp from bewildering pedestrians or drivers of approaching vehicles, while permitting the effective passage of the downward rays, and which means may be operated from the seat of the vehicle so as to enable the light to be thrown upward or in a horizontal direction as occasion may require, and which improvement will be simple in construction and comparatively inexpensive to manufacture.

A further object of the invention is the provision of an improved mask or hood having shiftable light ray intercepting means and particularly adapted for attachment in front of the lamp body or door, or exteriorly of the front glass of a motor vehicle head-light or search-light, and which, in one form thereof, may be shiftable with the lamp door whereby access to the interior of the lamp through the doorway is not interfered with, and which shiftable means may be pneumatically operated from the driver's seat of the vehicle.

The present application is a division of my application Serial No. 476,369, filed February 6, 1909, now Patent No. 921,449, dated May 11, 1909.

In the drawings accompanying and forming part of this specification, Figure 1 is a vertical sectional view of a motor vehicle lamp with this improved light ray intercepting means attached thereto in front of the front glass thereof; Fig. 2 is a front view of the improvement shown in Fig. 1; Fig. 3 is an enlarged vertical sectional view of the front part of the lamp body shown in Fig. 1, with the mask attached thereto, the lamp glass being removed, and the dotted lines illustrating one adjustment of the shiftable light ray intercepting means; Fig. 4 is an enlarged sectional view of the front part of a lamp body provided with a swinging door and having another form of this improved mask connected to the door; Fig. 5 is a detail perspective view of one of the shiftable members or louvers; and Fig. 6 is a perspective view showing the same attached to the rim of the mask.

Similar characters of reference indicate corresponding parts throughout the figures of the drawings.

Owing to the blinding glare of motor vehicle head-lights and search-lights, due to the upward rays of light, it is desirable that some means be provided which will eliminate the dangerous effects of such light rays by intercepting them without destroying the power of the light. It is also desirable at times in a device of this kind to be able to shift the light ray intercepting means so as to permit the light to be thrown directly forward or upward when it is desired, for instance, to read a sign board along the road; and to provide a structure which in its normal position will intercept the light rays so as to prevent the glare of the light, but which also may be so manipulated from the driver's seat in the manner described is the object of the present improvement. Moreover, it is essential to a practical means of this kind that it be comparatively simple in construction and readily attachable to lamps as now manufactured, and when such lamp is made with a swinging front door, that it may be of a construction which will not interfere with the accessibility to the interior of the lamp on the opening of the door.

In the present embodiment of this improvement the mask is attached in front of the lamp body, and therefore in front of the glass, or to the door when the lamp is provided with a shiftable or swinging door.

It is to be understood that the lamp body may be of any desired form, and that the improvement does not necessarily require any change in the form of lamps as now manufactured.

In Fig. 1 a conventional form of motor-vehicle lamp or lamp body 2 is shown which is not provided with a swinging front door. This lamp body has the usual front glass 4,

a swinging rear door 5 and reflector 6. In Fig. 4, however, the front of the conventional form of lamp body is shown provided with a swinging door 7 hinged thereto in any desired manner as at 8.

This improved mask 10 may be made up in various ways, and is usually preferably of a circular formation to conform to the shape of the door or front of the lamp, and in the form shown comprises an attaching rim 11 which may be secured to the front of the lamp body, or to the rim of the door in any desired manner, as for instance by thumb screws 12. This attaching rim in the form shown is provided with a forwardly projecting flange or flanges 13 to which a plurality of shiftable slats or louvers 14 are pivoted. While these slats or louvers may be pivoted to these flanges in any desired manner, in the present instance each louver is shown provided with a pair of pivots 15, one at each end, for insertion into openings in the flanges, whereby the louvers may be swung upward or downward. These louvers are located in parallelism one above another across the front of the lamp, one preferably overlapping the other to a slight extent, and if desired could be attached to a part of the lamp body instead of the rim as shown herein. For swinging these louvers improved means is provided, this including a connecting rod 16 secured to each of the louvers. This could be located midway of the louvers if preferred, but in the present instance this rod is connected to each louver at one end thereof outside of the lamp body, and for this purpose each louver may be provided with a projection 17 either formed as one piece with the louver or attached thereto in any desired manner and secured to the connecting rod. For shifting these louvers up or down this rod 16 is connected at its upper end by means of a pin 18 with a slotted link 19, the inner end of which is connected to a rock shaft 20 the opposite end of which is in turn connected to a link 21, to which the operating member or rod 22 is attached. This operating rod may be in the form of a wire leading to the dash board or seat of the vehicle. The rock shaft 20 to which the inner ends of these two links 19 and 21 are connected is supported by brackets 23 and 24, which may be secured to the lamp body in any suitable manner, or may be carried by a band that may be slipped over and rigidly secured to the lamp body.

The lower end of the connecting rod is mounted in a forwardly extending slotted arm 9 the inner end of which is also secured to the lamp body, or, if a band is used, to this band, the connecting rod projecting through the slot and at the outer end thereof. This connecting rod 16 has a collar or head 25 at its lower end, and between it and the underside of the arm 9 a coil spring 26 is loosely mounted. This spring is tensioned or adjusted to normally return the slats or louvers to their proper downwardly inclined position, as shown for instance in Fig. 1 and by dotted lines in Fig. 3, to intercept the upward rays of light. Further downward movement is limited by a suitable stop such as a pin 26′ adapted to engage the outer end of the bracket 9.

Should it be desired to entirely close these louvers or slats, as in the day time, to protect the front of the glass from dust and dirt, it will be merely necessary to disengage the stop 26′ and permit the spring to pull the rod downward. The tension of the spring may be regulated by the nut 25. The actuating rod 16 is shown provided with openings 17′ slightly larger than the pivots 17 thereby to afford sufficient play between the pivots and the actuating rod to permit a complete closing of the louvers when desired.

When it is desired to shift the louvers into a horizontal or an upwardly inclined position, it will be merely necessary to pull on the operating rod, which may be done by the driver without moving from his seat. Suitable means may be provided at the dash board for holding this operating rod in any of its adjusted positions, but when it is desired to hold the slats temporarily in their upward or horizontal position the rod may be held by the hand or foot of the driver according to the means provided for that purpose in the proper position to accomplish this. On the release of the operating rod the spring will return the slats to their light ray intercepting position.

In the form shown in Fig. 4 this improved mask is shown attached to the rim 3 of the swinging front door 7, and is provided with the slats or louvers constructed and mounted in the manner hereinbefore described and secured to a connecting rod 30 suitably supported at its upper end by an arm 31 carried by the mask. At the underside of this mask a bracket 32 is provided for carrying a dash pot or cylinder 33 in which is located a spring tensioned piston 34, the spring 35 of which is located between the piston head 36 and a cap or closure 37′ secured to the top of the cylinder in any desired manner, as by soldering it thereon or by forming it with a threaded flange to be rotated thereon, and through which cap the actuating rod 30 passes and slides. On top of this cap 37′ is located an adjustable wing nut 37. By adjusting this wing nut 37 the position of the louvers is regulated in a manner which will be readily understood. The lower end of this cylinder is provided with a nipple 38 to which is secured some suitable tubing, as for instance rubber tubing 39, which will lead to the driver's seat or to the dash board, as may be found desirable, and

provided with an operating bulb 40. The spring 35 normally holds the shiftable louvers in their proper downwardly inclined position, it being tensioned and adjusted for this purpose by the nut 37 hereinbefore referred to, so as to intercept the upward rays of light without interfering with the downward rays thereof. When, however, it is desired to shift these louvers into a horizontal or upwardly inclined position the operator will merely compress the bulb and thereby pneumatically force the piston upward and thus raise the louvers, the spring returning them on the release of the bulb. The tubing between the bulb and the piston cylinder will usually be flexible and of such length that the door of the lamp may be swung open without the necessity of detaching the mask therefrom.

In the form shown in Fig. 4 if it is desired to entirely close the slats the nut 37 may be so adjusted that the tension of the spring will be relieved and so permit the slats to be entirely closed across the front of the lamp, and to permit this to be done the actuating rod 30 is provided with elongated slots 30'.

In practice the rod connected to each of the louvers may be located adjacent the outer edge thereof or intermediate their front and rear edges, as may be preferred.

The foregoing improvement thus provides a very simple and comparatively inexpensive mask for motor-vehicle lamps in which the light ray intercepting louvers or slats may be readily shifted by the driver of the vehicle without leaving his seat.

By forming the mask so that it may be attached to the front of the lamp body in front of the glass either to the body itself or to the door when such is provided, the device forms not only a light ray intercepting means, but also a protecting means for the glass not only from dust and dirt when the louvers are closed, but also from injury, as it will be readily perceived that in case of collision these members will act as buffers to a large extent and so protect the glass from injury and breakage.

If desired the under surfaces of the light ray intercepting members or louvers may be made as reflecting surfaces by silvering or nickel-plating them, so that the upward rays of light when the louvers are in a downwardly inclined position may be to a large extent reflected downwardly on the road.

It will, of course, be understood that the various details may be more or less modified without departing from the spirit and scope of this improvement.

In practice it will be observed that the mask, especially that form thereof shown in Fig. 4, may be readily detached from the front of the lamp if for any purpose this is desirable, by simply removing the rim which is shown connected to the rim of the door by thumb screws, and even in the form shown in Figs. 1 to 3 this mask may be readily detached when the links and bracket arm are carried by a band slipped over the front of the lamp body.

I claim as my invention:

1. The combination with a lamp of the class described, of a plurality of normally downwardly inclined shiftably supported members located in front of such lamp and one above another for intercepting the upward rays of light to prevent the glare of the lamp.

2. The combination with a lamp of the class described, having a front glass, of a plurality of normally downwardly inclined shiftably supported members located in front of such glass and one above another for intercepting the upward rays of light to prevent the glare of the lamp.

3. The combination with a lamp of the class described having a swinging front door, of a plurality of normally downwardly inclined shiftably supported members secured to and shiftable with such door and one above another for intercepting the upward rays of light to prevent the glare of the lamp.

4. The combination with a lamp of the class described having a swinging front door, of a plurality of normally downwardly inclined shiftably supported members secured to and located in front of such door and one above another for intercepting the upward rays of light to prevent the glare of the lamp.

5. The combination with a lamp of the class described, of a plurality of normally downwardly inclined shiftably supported members located in front of such lamp and one above another to intercept the upward rays of light and prevent the glare of the lamp, means for holding them in such position, and means for shifting such members into different positions.

6. The combination with a lamp of the class described having a front glass, of a plurality of normally downwardly inclined shiftably supported members located in front of such glass and one above another to intercept the upward rays of light and prevent the glare of the lamp, means for holding them in such position, and means for shifting such members into different positions.

7. The combination with a lamp of the class described having a swinging front door, of a plurality of normally downwardly inclined shiftably supported members secured to and shiftable with such door and one above another to intercept the upward rays of light and prevent the glare of the lamp, means for holding them in such position, and means for shifting such members into different positions.

8. The combination with a lamp of the class described having a swinging front

door, of a plurality of normally downwardly inclined shiftably supported members secured to and located in front of such door and one above another to intercept the upward rays of light and prevent the glare of the lamp, means for holding them in such position, and means for shifting such members into different positions.

9. The combination with a lamp of the class described, of a plurality of normally downwardly inclined shiftably supported members carried by the lamp and one above another to intercept the upward rays of light and prevent the glare of the lamp, means for holding them in such position, and pneumatically controlled means for shifting such members into different positions.

10. The combination with a lamp of the class described, having a swinging front door, of a plurality of normally downwardly inclined shiftably supported members secured to and shiftable with such door and one above another to intercept the upward rays of light and prevent the glare of the lamp, means for holding them in such position, and pneumatically controlled means for shifting such members into different positions.

11. The combination with a lamp of the class described having a swinging front door, of a plurality of normally downwardly inclined shiftably supported members secured to and located in front of such door and one above another to intercept the upward rays of light and prevent the glare of the lamp, spring controlled means for holding them in such position, and pneumatically controlled means for shifting such members into different positions.

12. The combination with a lamp of the class described, of a plurality of normally downwardly inclined shiftably supported members carried by the lamp and one above another to intercept the upward rays of light and prevent the glare of the lamp, means for holding the members in such position, and means for shifting such members into different positions.

13. The combination with a lamp of the class described, of a plurality of normally downwardly inclined shiftably supported members carried by the lamp and one above another to intercept the upward rays of light and prevent the glare of the lamp, spring controlled means for holding the members in such position, and means for shifting such members into different positions.

14. The combination with a lamp of the class described, of a plurality of normally downwardly inclined shiftably supported members carried by the lamp and one above another to intercept the upward rays of light and prevent the glare of the lamp, spring controlled means for holding the members in such position, and pneumatically controlled means for shifting such members into different positions.

15. The combination with a lamp of the class described, of a plurality of normally downwardly inclined shiftably supported members located one above another to intercept the upward rays of light and prevent the glare of the lamp, and means including piston mechanism for shifting such members into different positions.

16. The combination with a lamp of the class described having a swinging front door, of a plurality of normally downwardly inclined shiftably supported members secured to and shiftable with such door and one above another to intercept the upward rays of light and prevent the glare of the lamp, means for holding the members in such position, and means including piston mechanism for shifting such members into different positions.

17. The combination with a lamp of the class described having a swinging front door, of means connected thereto for movement therewith for preventing the glare of the lamp and comprising shiftable members located to intercept the upward rays of light, and means for shifting said members.

18. The combination with a lamp of the class described having a swinging front door, of means connected thereto for movement therewith for preventing the glare of the lamp and comprising shiftable members located to intercept the upward rays of light, and pneumatically controlled means for shifting said members.

19. The combination with a lamp of the class described, of means comprising a series of overlapping pivotally supported shiftable members carried by the lamp one above another and having normally downwardly inclined positions to intercept the upward rays of light thereby to prevent the glare of the lamp while permitting the effective passage of the downward rays of light, means for maintaining the members in such position, and means for shifting them into different positions.

20. The combination with a lamp of the class described, of means comprising a plurality of pivotally supported shiftable members carried thereby one above another and having normally downwardly inclined positions to intercept the upward rays of light thereby to prevent the glare of the lamp while permitting the effective passage of the downward rays of light, a spring tensioned rod connected to all of said members, and means in operative connection with said rod and adapted to lead to a vehicle for shifting said members.

21. The combination with a lamp of the class described, of means comprising a plurality of pivotally supported shiftable mem-

bers carried thereby one above another and having normally downwardly inclined positions to intercept the upward rays of light thereby to prevent the glare of the lamp while permitting the effective passage of the downward rays of light, a spring tensioned rod connected to all of said members, and pneumatically controlled means in operative connection with said rod and adapted to be operated from a vehicle for shifting said members.

22. A mask for preventing the glare of head and search lights, comprising a rim, a plurality of shiftable slats pivotally secured to such rim, a spring tensioned rod connected to said slots, and means for shifting said rod.

23. A mask for preventing the glare of head and search lights comprising a rim, a plurality of shiftable slats pivotally secured to such rim, a spring tensioned rod connected to said slats, and pneumatically controlled means for shifting said rod.

24. The combination with a motor-vehicle lamp, of a detachable mask for the front of said lamp and including a plurality of shiftable members for intercepting the upward rays of light to prevent the glare of the lamp, and means for shifting said members.

25. The combination with a motor-vehicle lamp, of a detachable mask for the front of said lamp and including a plurality of shiftable members for intercepting the upward rays of light to prevent the glare of the lamp, and pneumatically controlled means for shifting said members.

26. The combination with a motor-vehicle lamp having a swinging front door, of a detachable mask for said door, said mask having a plurality of shiftable members for intercepting the upward rays of light to prevent the glare of the lamp while permitting the effective passage of the downward rays of light, and means for shifting said members.

27. The combination with a motor-vehicle lamp having a swinging front door, of a detachable mask for said door, said mask having a plurality of shiftable members for intercepting the upward rays of light to prevent the glare of the lamp while permitting the effective passage of the downward rays of light, and means including a spring tensioned rod and operating means therefor for shifting said members.

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