

Sept. 1, 1925.

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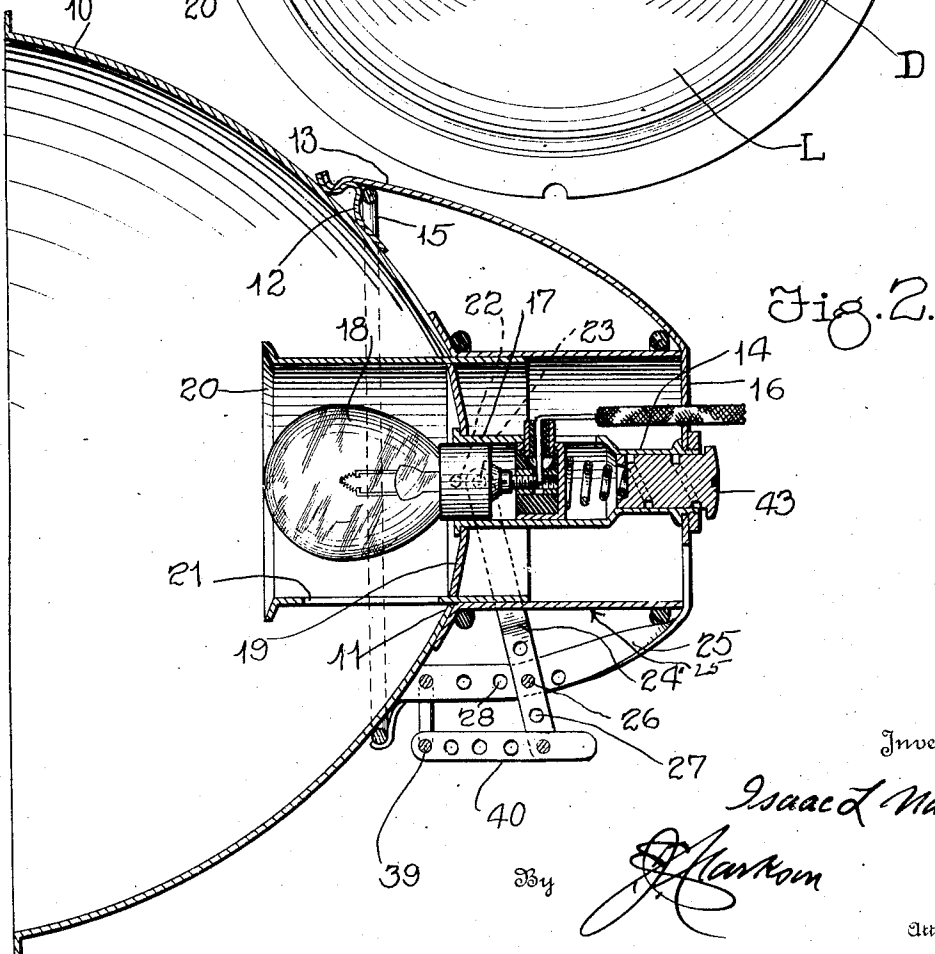
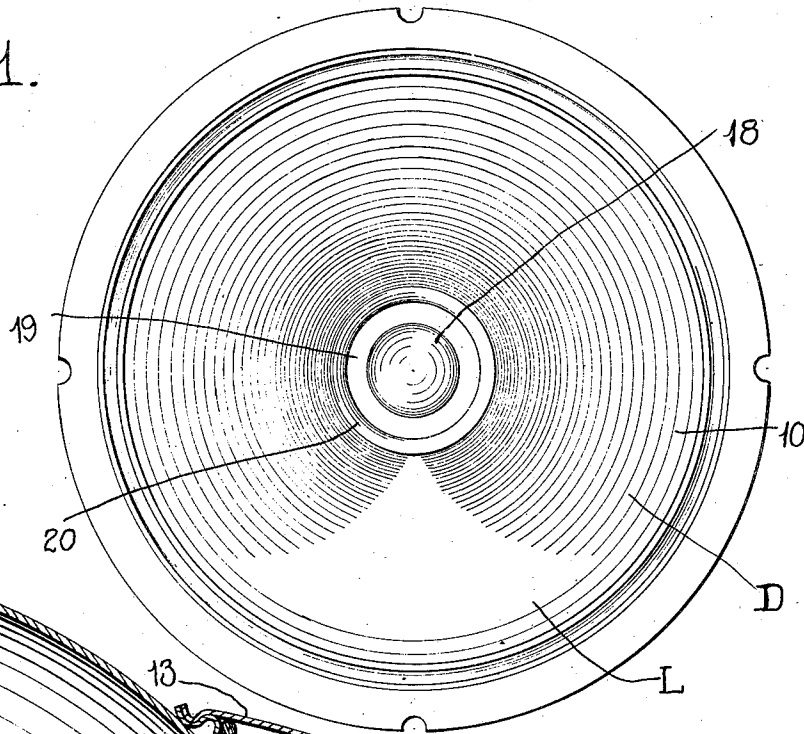
I. L. NASE

HEADLIGHT DIMMER

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Fig. 1.



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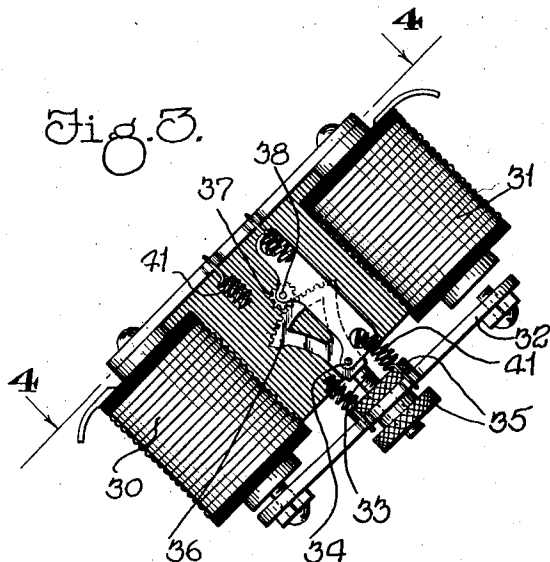


Fig. 4.

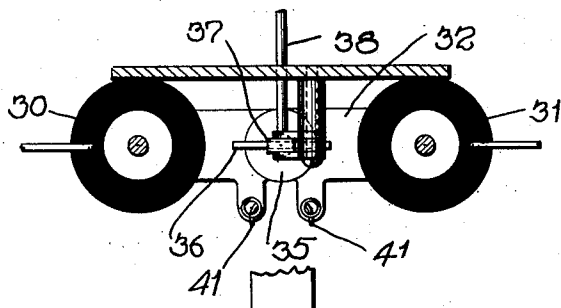
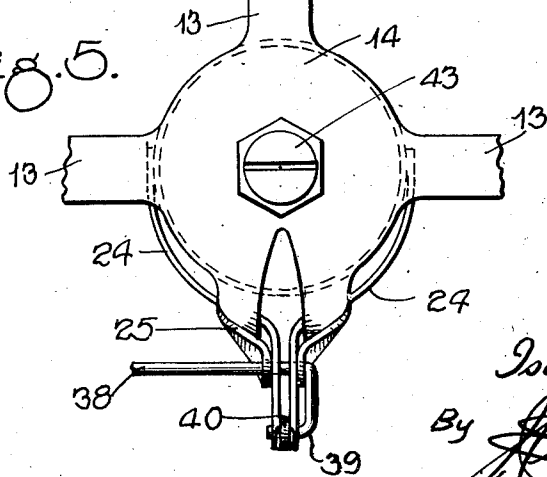


Fig. 5.



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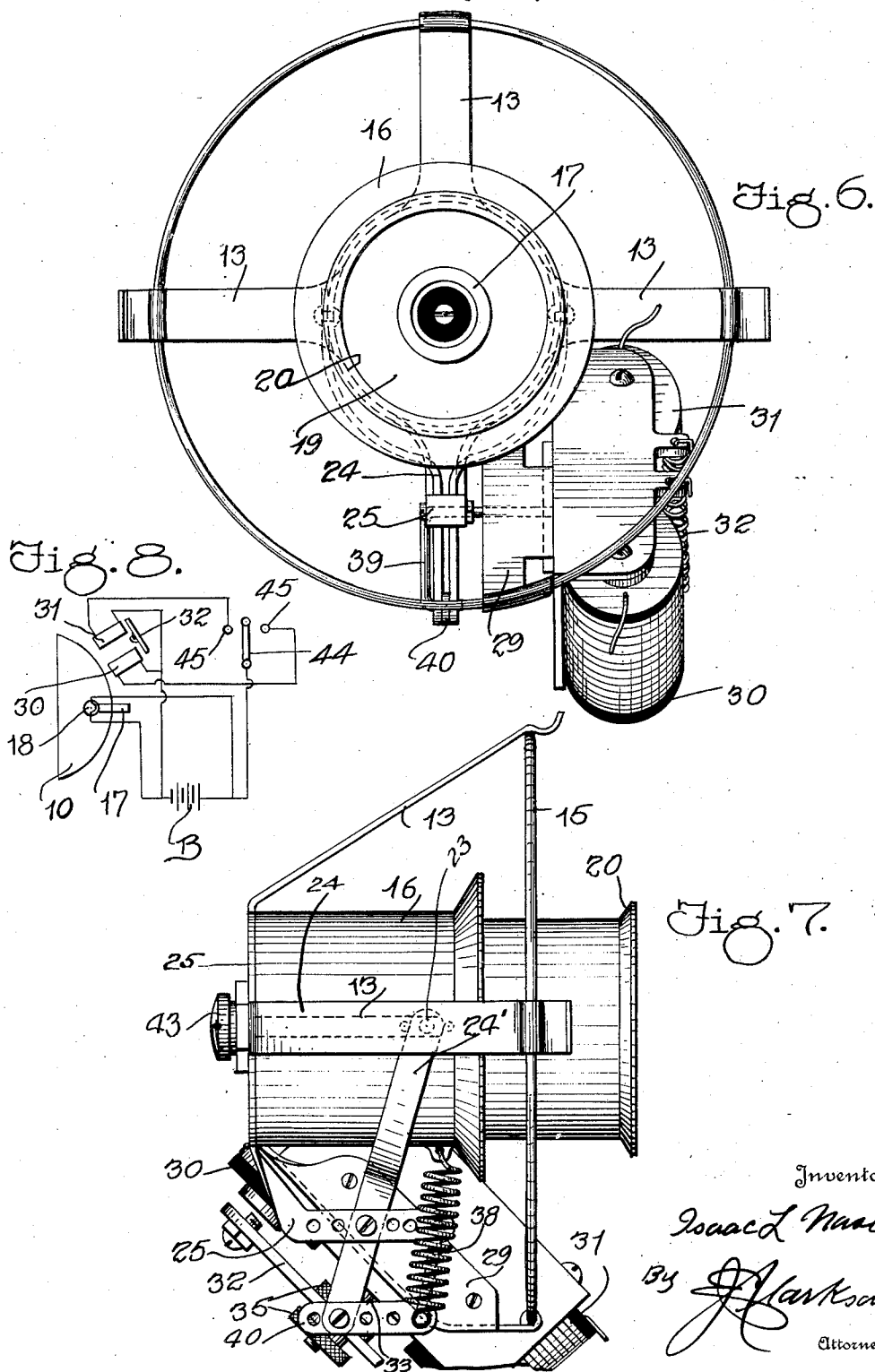
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HEADLIGHT DIMMER

Filed Sept. 20, 1924

3 Sheets-Sheet 3



Patented Sept. 1, 1925.

1,551,901

UNITED STATES PATENT OFFICE.

ISAAC L. NASE, OF WALSTON, PENNSYLVANIA.

HEADLIGHT DIMMER.

Application filed September 20, 1924. Serial No. 738,866.

To all whom it may concern:

Be it known that ISAAC L. NASE, a citizen of the United States, residing at Walston, in the county of Jefferson and State of Pennsylvania, has invented certain new and useful Improvements in Headlight Dimmers, of which the following is a specification.

This invention relates to a head light for vehicles and has special reference to a dimmer for head lights.

One important object of the invention is to provide an improved and novel general construction for devices of this character.

A second important object of the invention is to provide a head light having a novel arrangement of dimming shield.

A third important object of the invention is to provide a novel operating device for such a dimmer shield.

A fourth important object of the invention is to provide a novel form of such a device wherein the operating parts are all supported on a frame independent of the main reflector and attachable to and detachable from said reflector.

With the above and other objects in view as will be hereinafter apparent, the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings and specifically claimed.

In the accompanying drawings like characters of reference indicate like parts in the several views, and:

Figure 1 is a front view of the reflector with the device applied thereto and the dimmer shield protruded the view showing the light and dimmed areas of the reflector.

Figure 2 is a section of the device on the vertical diameter of Figure 1.

Figure 3 is a side elevation of the operating magnets, certain parts being broken away.

Figure 4 is a section on the line 4-4 of Figure 3.

Figure 5 is a detail to large scale showing the central portion of the device from the rear.

Figure 6 is a front elevation of the device removed from the reflector.

Figure 7 is a side view of the device removed.

Figure 8 shows a typical wiring diagram for such a device.

In the embodiment of the invention here shown there is disclosed a reflector 10 of the usual parabolic form wherein is a centrally disposed opening 11. On the back surface of this reflector there are provided a series of catches 12 with which interlock the ends of spring arm members 13 which are connected together centrally by a plate 16. These arms, in practice, form extensions of this plate. The arms are connected near their free ends by a tie ring 15. This plate carries a centrally disposed lamp support 16 provided with the usual lamp socket 17 wherein is mounted a lamp 18 having its filament located substantially at the focus of the reflector 10. Carried by the lamp socket 17 is a minor or secondary reflector 19 which substantially fills the opening in the reflector 10, the secondary reflector having its edge spaced from the edge of said opening so as to leave an annular slit between the main and secondary reflectors. In this slit slides a dimmer sleeve 20 having an opening 21 in its lower part and provided with a series of openings 22 on each side to receive pins 23 movable in slots 24 formed in a fixed sleeve 25 surrounding the sleeve 20 and wherein said sleeve 20 moves. A yoke 24' has its arms connected to these pins 23 and straddles a support 25' to which it is connected by a pin 26 which may be shifted from one to the other of a set of holes 27 in the yoke members and a similar set 28 in the support 25'. Carried by the plate 16 and ring 15 is a bracket 29 whereto is secured a pair of independent magnets 30 and 31 which are arranged to actuate a tilting member 32 supported on a threaded bar 33 pivoted on a pin 34. This bar 33 has the member 32 mounted thereon by adjusting nuts 35 so that the tilting member can be moved to and from the pivot 34 and thus its amplitude of oscillation adjusted. The bar 33 furthermore is provided with a gear segment 36 which meshes with a pinion 37 fixed on a shaft 38 which is shaped to form a crank 39 connected to the yoke members 24 by a link 40. Thus the tilting member is connected by a linkage with the sleeve 20 so that the energization of the magnet 30 will tilt the member 32 in one direction and protract the sleeve 20 while the energization of the magnet 31 tilts the member 32 in the opposite direction and retracts the sleeve 20. Springs 41 are used to control the throw of the tilting member.

An adjusting screw 43 is provided for adjusting the lamp properly with respect to the focus.

From Figure 1 it will be seen that with the sleeve protruded the major part of the reflector 10 will be dimmed as shown at "D" while a small area "L" will be lighted. Thus, with the sleeve protruded, the light from the lamp, if the latter be properly adjusted is only thrown on the lower part of the reflector and is only thrown on the road or below the line of vision of an approaching driver. Referring to Figure 8 it will be seen that a suitable switch 44 is provided movable between the contact points 45 which are connected respectively to the magnets 31 and 30, the two magnets being connected in multiple to the battery "B" which also supplies lamp 18 with current. While the magnets and lamp have been here shown as having wire connections with both terminals of the battery, it is obvious, that, in practice, the usual grounded connection will be used, the present diagram being for the purpose of disclosing the circuits employed.

Having thus described the invention, what is claimed as new, is:

1. In combination, a reflector having a central opening, a fixed sleeve projecting rearwardly from said opening a lamp socket supported by the rear end of the fixed sleeve and extending forwardly therefrom, a tubular lamp shield reciprocally mounted in the fixed sleeve, and means to actuate the shield

including a lever having one end pivotally connected to the shield, a bracket connecting said reflector and the rear end of the sleeve, means for variably pivoting the lever on the bracket, a link pivoted to the remaining end of the lever, a crank and means for variably connecting the crank and link; and means to operate the crank.

2. In combination, a reflector having a central opening, a fixed sleeve projecting rearwardly from said opening a lamp socket supported by the rear end of the fixed sleeve and extending forwardly therefrom, a tubular lamp shield reciprocally mounted in the fixed sleeve, and means to actuate the shield including a lever having one end pivotally connected to the shield, a bracket connecting said reflector and the rear end of the sleeve, means for variably pivoting the lever on the bracket, a link pivoted to the remaining end of the lever, a crank and means for variably connecting the crank and link, the variable connections between the lever and bracket consisting of a pivot pin and the lever and bracket each having a series of spaced openings for the reception of said pin, the means for the variable connection between the crank and link comprising the link having a series of spaced openings for connection of said crank; and means to actuate the crank.

In testimony whereof I affix my signature.

ISAAC L. NASE.