

No. 741,187.

PATENTED OCT. 13, 1903.

H. S. TEAL.
DIMMER FOR HEADLIGHTS.
APPLICATION FILED DEC. 16, 1902.

NO MODEL

Fig 1.

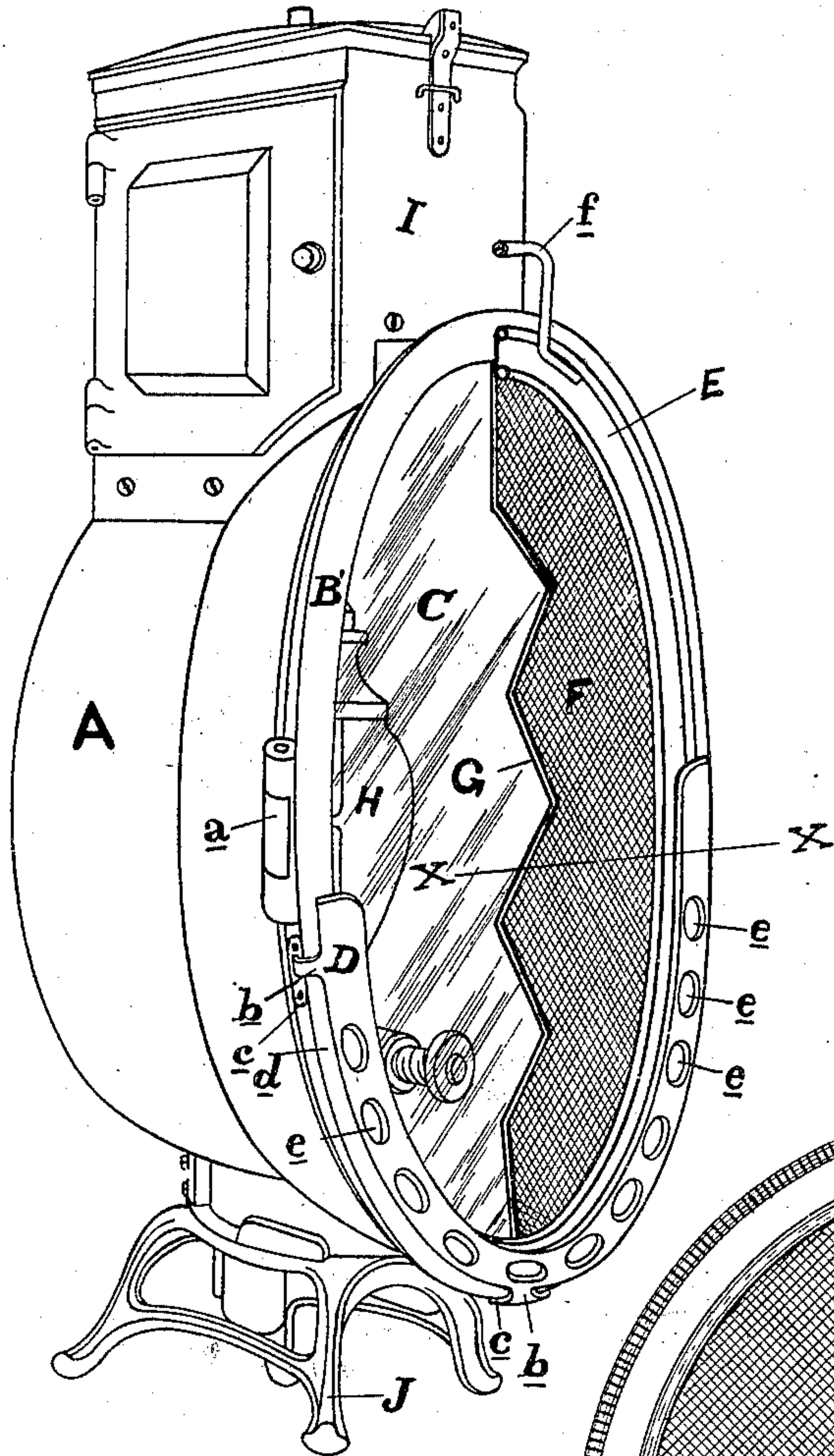


Fig 3.

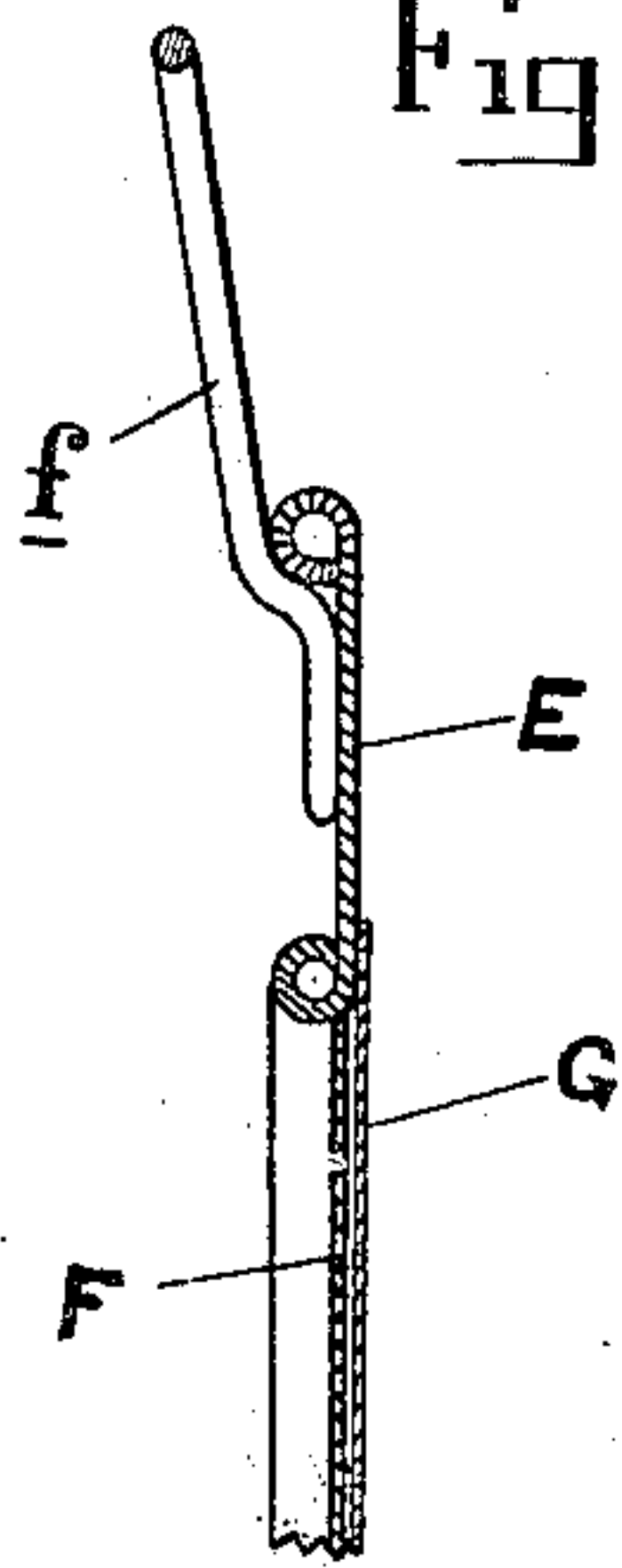


Fig 2.

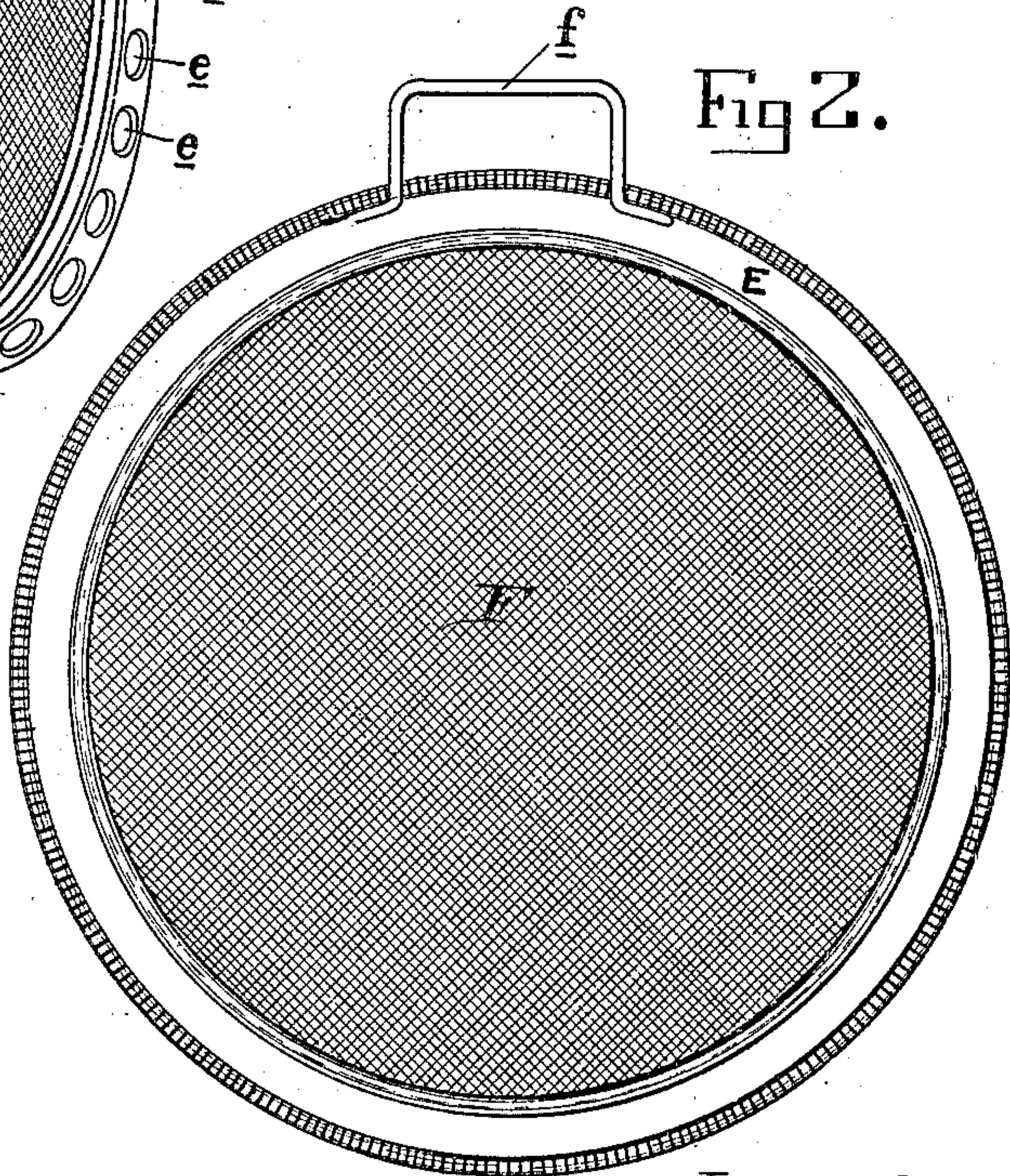
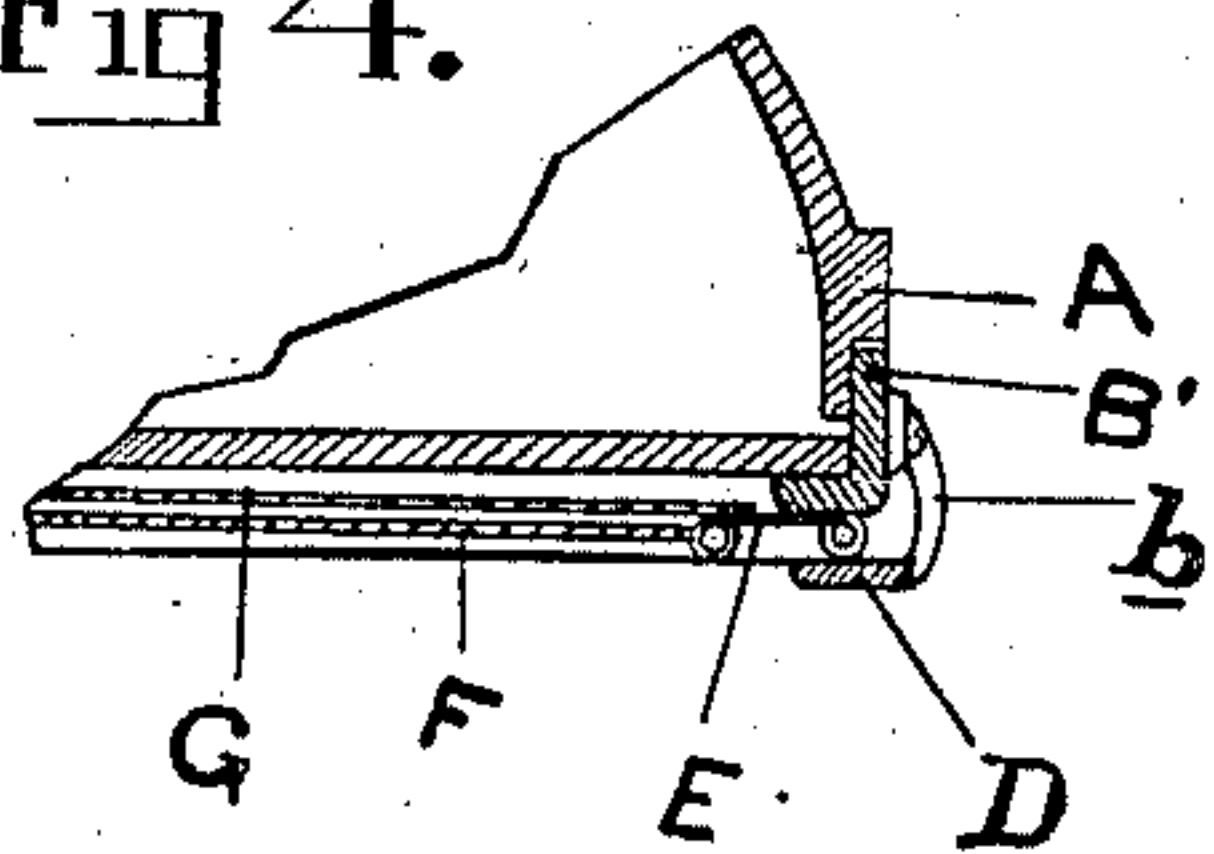


Fig 4.



Attest:

E. B. Lehman
Edward G. Freed.

Inventor.

Henry S. Teal
By *[Signature]*
His Atty.

UNITED STATES PATENT OFFICE.

HENRY S. TEAL, OF BUFFALO, NEW YORK, ASSIGNOR TO UNITED STATES HEADLIGHT COMPANY, OF BUFFALO, NEW YORK.

DIMMER FOR HEADLIGHTS.

SPECIFICATION forming part of Letters Patent No. 741,187, dated October 13, 1903.

Application filed December 15, 1902. Serial No. 135,348. (No model.)

To all whom it may concern:

Be it known that I, HENRY S. TEAL, a citizen of the United States, and a resident of the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Dimmers for Headlights; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to dimmers for headlights, and it is more particularly adapted for use with electric-arc headlights used on street and interurban railway cars.

The objects of my invention are to provide a simple, inexpensive, and efficient device whereby when passing through the streets of cities or highways where a powerful light is objectionable the motorman or conductor can quickly reduce the volume of light ahead of the car and at the same time and by the same means practically obscure from view the reflector and intense volume of light generated by the carbons or other means within the headlight, thereby removing a common objection to the use of a powerful headlight on street-railway cars, while at the same time allowing sufficient light to pass through to act as an efficient signal within city limits.

The invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects are attained and which are fully described in this specification, illustrated in the accompanying drawings, and pointed out in the claims at the end hereof.

In the said drawings, Figure 1 represents in perspective an electric-arc headlight with my invention applied thereto, showing the dimmer broken away and a portion of the same removed from its holder. Fig. 2 represents a front view of the dimmer removed from the headlight. Fig. 3 represents a partial section of the dimmer through the center vertical line thereof, and Fig. 4 is a partial section through line X X of Fig. 1.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

A represents a headlight-case adapted to be mounted upon the dashboard of a street-car or interurban-railway car and within which is located a lamp of the electric-arc type and which may, if desired, be substituted by a lamp adapted to burn any of the various illuminants.

B represents a glass-holder hinged at *a* to the case A and carrying the usual glass disk C, which covers the open front of the headlight.

D is a guide or holder provided with a number of legs or brackets *b*, having plates *c*, by which it is secured to the glass-holder B. The guide or holder D is located a suitable distance from the face of the glass-holder B to receive a dimmer-frame E, and open spaces *d* are thus formed between the said members B and D, whereby accumulation of dirt, snow, and ice between these parts is prevented. The guide or holder D is also perforated, as shown at *e*, to reduce its weight and improve its appearance. For the purpose of illustrating my invention I have shown it applied to a headlight having a glass-holder of the form of a circle, the dimmer guide or holder D being semicircular in form and extending from the bottom of the glass-holder upwardly to about the center horizontal line thereof. It is obvious, however, that the forms of these members may be varied to suit requirements.

Within the frame E there is secured a plurality of disks F G, which may be of wire-netting, perforated metal, or translucent material, and it will be apparent that any suitable number of such disks may be employed, also that the degree to which the power of the light forward of the reflector is reduced, as well as the degree to which the glare of the reflector when facing the same is minimized, depends upon the number of disks and the size of the mesh or the degree of translucency of the material employed. In practice I have found that two of these disks composed of wire-cloth, one of forty and the other of sixty mesh, produce the best result. With such combination the rays of light are properly broken up in passing through the gauze disks, so that in reuniting ample light for city purposes is reflected forward and the objectionable glare of the reflector is ob-

secured, whereby horses which are apt to frighten at such headlighting moving in the street when not protected in some manner to reduce their intensity are caused to be unconscious of their presence and are therefore not frightened thereat.

Within the case A there is arranged a lamp H, which in the present instance is shown as an electric-arc lamp having its upper operating mechanism extending through the case into a box-like supplemental case I, mounted on the top thereof, the lower part of the case being provided with a stand J, neither of which elements form any part of my present invention.

As will be observed by reference to Fig. 1 of the said drawings, when it is desired to reduce the light, as hereinbefore set forth, the frame E, having the disks F G attached thereto, is placed in position in front of the glass disk C, being so held by means of the glass-holder B and the guide or holder D, in conjunction with the legs or brackets b, upon which the frame E rests. To facilitate changing the frame E to and from its said position, a handle f is attached thereto, and this handle also serves as a loop by which the frame can be hung in the vestibule of the car when not in service.

As the details of construction which I have shown and described herein may be departed from without departing from the spirit of my invention, I do not limit the invention to such exact construction.

Having thus fully described my invention, I claim—

1. The combination with a headlight having an open front, of a glass disk covering said open front, a frame arranged in front of and adjacent to said glass disk, a disk of open-work material attached to and sur-

rounded by said frame, and means whereby the latter is removably supported in such position, substantially as and for the purpose set forth.

2. The combination with a headlight, of a glass-holder therefor, a glass disk carried by the said glass-holder, a dimmer-holder, a frame, and a disk of open-work material attached to and surrounded by said frame, the latter being removably supported in said dimmer-holder, substantially as and for the purpose set forth.

3. The combination with a headlight, of a plurality of disks of open-work material arranged one over the other, and means for supporting the same in front of and adjacent to the headlight, substantially as and for the purpose set forth.

4. The combination with a headlight, of an open frame, a plurality of disks of open-work material arranged one over the other within said frame, and means for supporting the frame in front of and adjacent to the headlight, substantially as and for the purpose set forth.

5. The combination with a headlight, of a glass-holder therefor, a glass disk carried by the said glass-holder, a dimmer-holder secured to said glass-holder, a plurality of disks of open-work material arranged one over the other and removably supported in front of the said glass disk between the said glass-holder and the said dimmer-holder, substantially as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my name, in presence of two witnesses, this 26th day of November, 1902.

HENRY S. TEAL.

Witnesses:

ARTHUR E. BRIGGS,
E. H. CASTLE.