

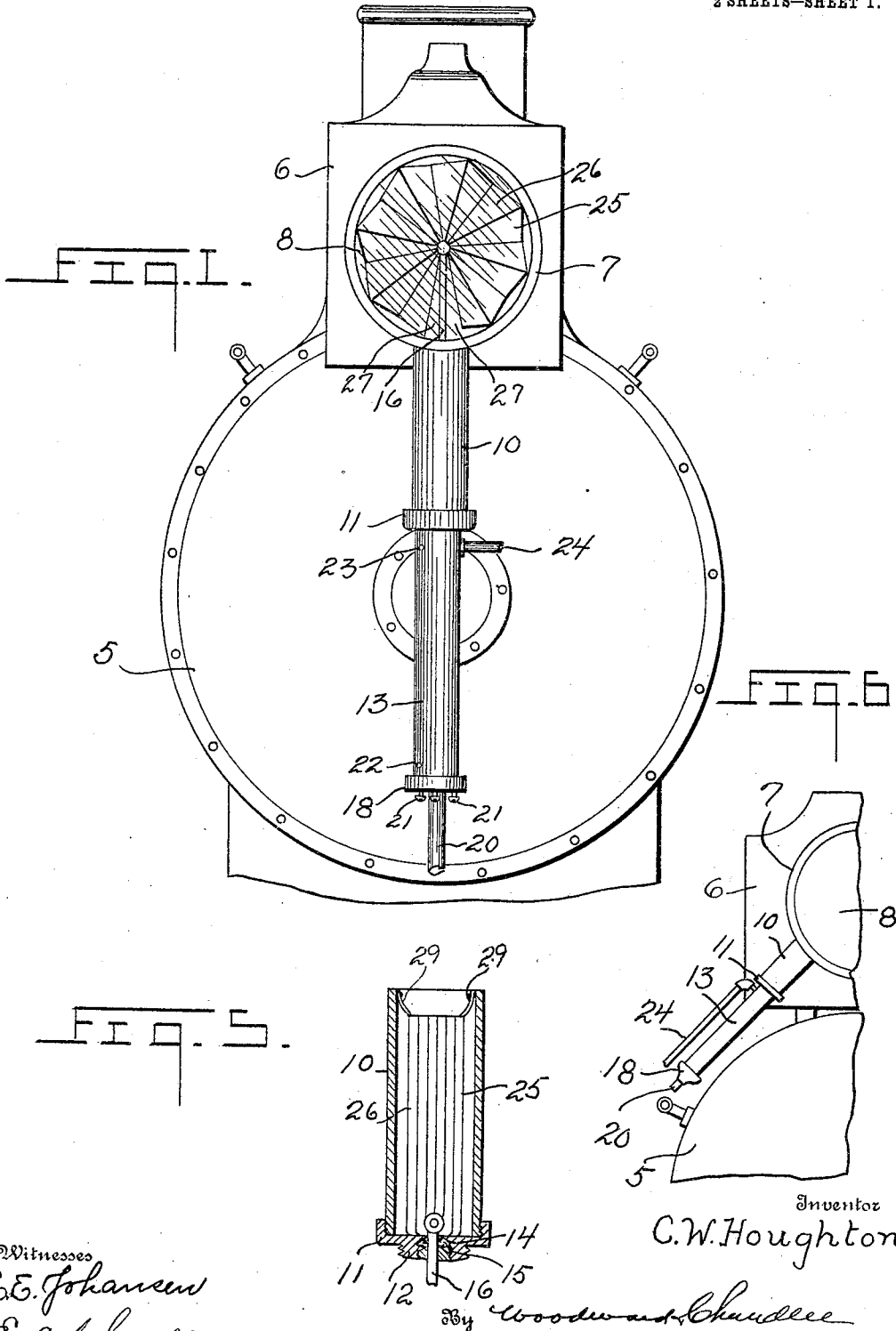
C. W. HOUGHTON.
HEADLIGHT COVER.

APPLICATION FILED APR. 16, 1909.

940,156.

Patented Nov. 16, 1909.

2 SHEETS—SHEET 1.



Witnesses
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Inventor
C. W. Houghton

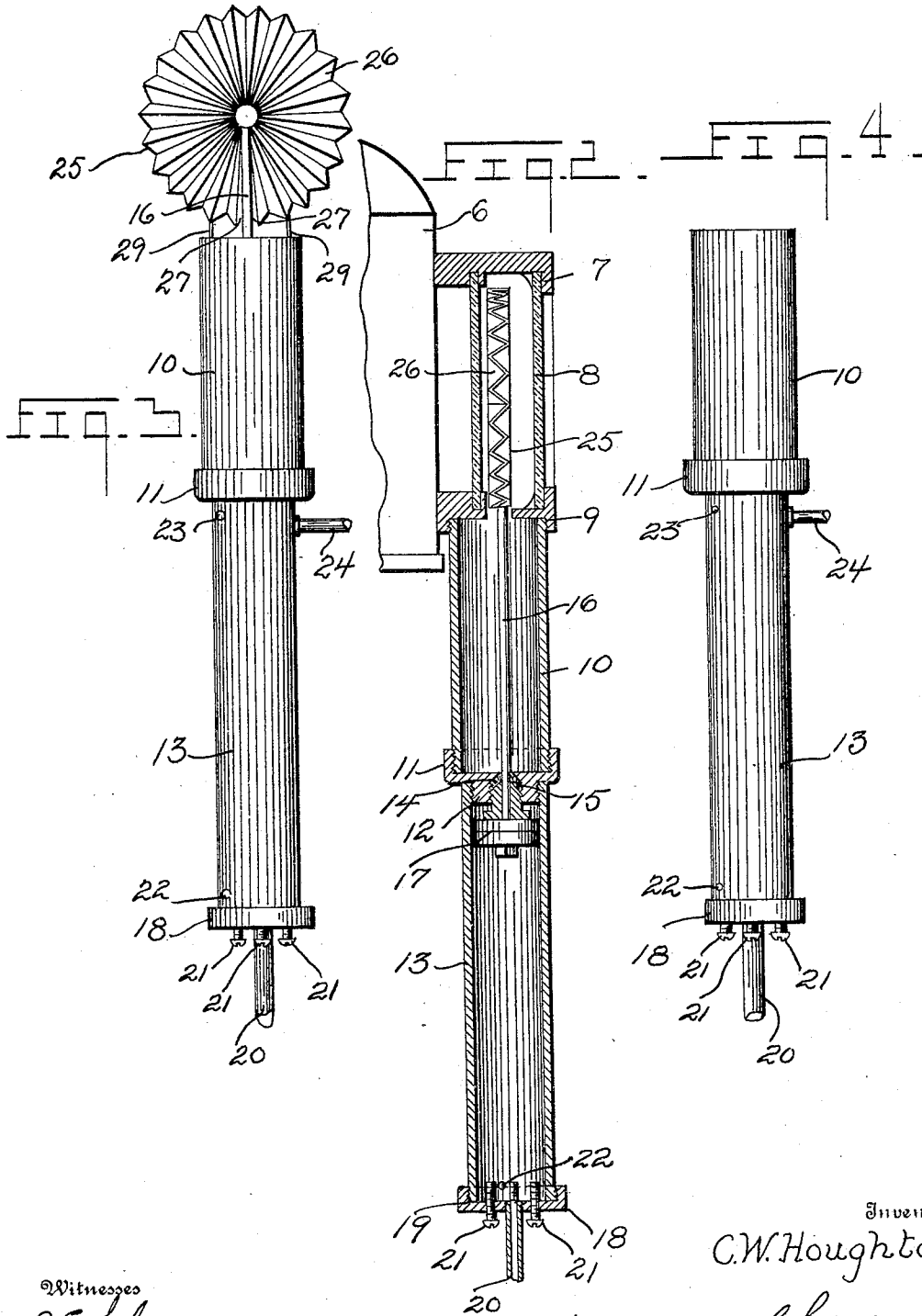
By Woodward & Chandler

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UNITED STATES PATENT OFFICE.

CHARLES W. HOUGHTON, OF DUBUQUE, IOWA.

HEADLIGHT-COVER.

940,156.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed April 16, 1909. Serial No. 490,215.

To all whom it may concern:

Be it known that I, CHARLES W. HOUGHTON, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Headlight-Covers, of which the following is a specification.

This invention relates to head lights for locomotives, and more particularly to shields or covers therefor, and has for its object to provide a device of this kind which may be easily placed upon a locomotive, and which may be operated from the cab of a locomotive to cover and uncover the head light, during the passing of a train on a track adjacent to that upon which the locomotive is located.

It will of course be understood that it is necessary to cover the high powered electric or acetylene head lights of locomotives when standing on sidings, in order that their intense light may not temporarily blind the engineer or fireman of a passing train. In the past, it has been customary for the fireman to climb along the running board of the locomotive and cover the headlight with a shield of any suitable kind placed in position by hand. It is to obviate the necessity for this laborious and dangerous passage along the running boards, that the present invention is provided.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a front view of a locomotive provided with the present invention, Fig. 2 is an enlarged vertical section taken centrally through the head light and the attachment, Fig. 3 is an enlarged front elevation of the attachment with the fan member extended, Fig. 4 is a view similar to Fig. 3 with the fan member folded, Fig. 5 is a view taken through the containing tube at right angles to Fig. 4, the fan being in a folded position. Fig. 6 is a fragmentary view of a modified form showing a diagonally positioned mechanism.

Referring now to the drawings, there is shown a locomotive indicated at 5, and provided with a headlight 6. The headlight is provided with a forwardly extending annulus 7, which receives the usual glass 8. The annulus 7 has an opening 9 in its lower portion, and this opening receives the upper end of a metallic containing member 10. The lower end of this containing member 10 is

screwed into a collar 11, which is provided with a downwardly extending threaded nipple 12, screwed into the upper end of an air cylinder 13. The nipple 12 has a passage 14 formed therethrough, surrounded by a packing gland 15, and engaged through this packing gland and extending both into the containing member 10 and the cylinder 13, there is a rod 16, carrying a piston 17 at its lower end within the cylinder 13. The lower end of the cylinder 13 is closed by a circular plate 18, having a threaded recess 19 in its upper surface, into which the lower end of the cylinder 13 is screwed. The plate 18 has an air inlet pipe 20 communicating centrally therewith, and engaged through the plate 18 there are a plurality of upwardly extending screws 21 having their heads disposed downwardly, for engagement to screw the screws either upwardly or downwardly to vary the distance which they project into the cylinder 13. In this way, the movement of the piston 17 may be regulated within certain limits.

An air escape opening 22 is formed in the lower portion of the cylinder 13, and a second air escape opening 23 is formed in the upper portion of the cylinder 13. These air escape openings are below and above the downward and upward limit of movement of the piston, as will be understood.

An air inlet pipe 24 communicates with the cylinder 13 above the upward limit of movement of the piston 17, and it will be understood that both of the air inlet pipes communicate with a source of air supply upon the locomotive, and are provided with valves within reach of the engineer, which may be operated to cut off the supply of air from either of the pipes.

A fan member 25, consisting of a plurality of foldable wings 26 has its central portion mounted upon the upper end of the rod 16, and has its parts at opposite sides of its splits 27 secured to the upper edge of the containing member 10, as shown at 29. It will be understood that the fan member is in the form of the usual star fan, which is foldable through rectilinear movement of its central portion, with respect to attached portions at opposite sides of a radial split, and as will be seen from the drawings, when the rod 16 is moved downwardly the fan member will be moved into the containing member 10, whereas when the rod 16 is moved upwardly, the fan member will be

extended to lie within the annulus 7 and to cover the glass 8.

In operation, when it is desired to cover the glass of the headlight and thus cut off the rays therefrom, air is admitted to the lower portion of the cylinder 13, the piston 17 being raised thereby, and the fan member brought into operative position. The air is then cut off, and the pressure is exhausted from the cylinder 13 through the opening 22. The friction of the various parts prevents the piston from descending until air is admitted through the inlet pipe 24, when the piston will be forced downwardly, and thereafter, the air supply being cut off, the excess of pressure will leak out through the opening 23. In this way, the covering member may be quickly and easily brought into and out of operative position.

What is claimed is:

A headlight cover comprising a cylindrical member, a collar threaded upon the lower end of the said member, a threaded sleeve carried by the collar and extending downwardly therefrom, a cylinder having a

threaded upper end engaged with the sleeve, a packing gland located centrally of the sleeve, a piston rod slidably engaged in the packing gland and extending into the cylindrical member and into the cylinder, a piston carried by the piston rod within the cylinder and arranged for sliding movement therewithin, a star fan connected with the upper end of the piston rod for movement with the piston rod to lie at times within the cylindrical member, and at times to lie extended therefrom to cover a head light, a circular plate engaged with the lower end of the cylinder, screws adjustably engaged through the plate and arranged for operation to vary the limit of downward movement of the piston, and means for admitting fluid under pressure to the opposite ends of the cylinder for movement of the piston in opposite directions.

In testimony whereof I affix my signature, in presence of two witnesses.

CHARLES W. HOUGHTON.

Witnesses:

DOM. RHAMBERG,
D. M. KOLBE.