

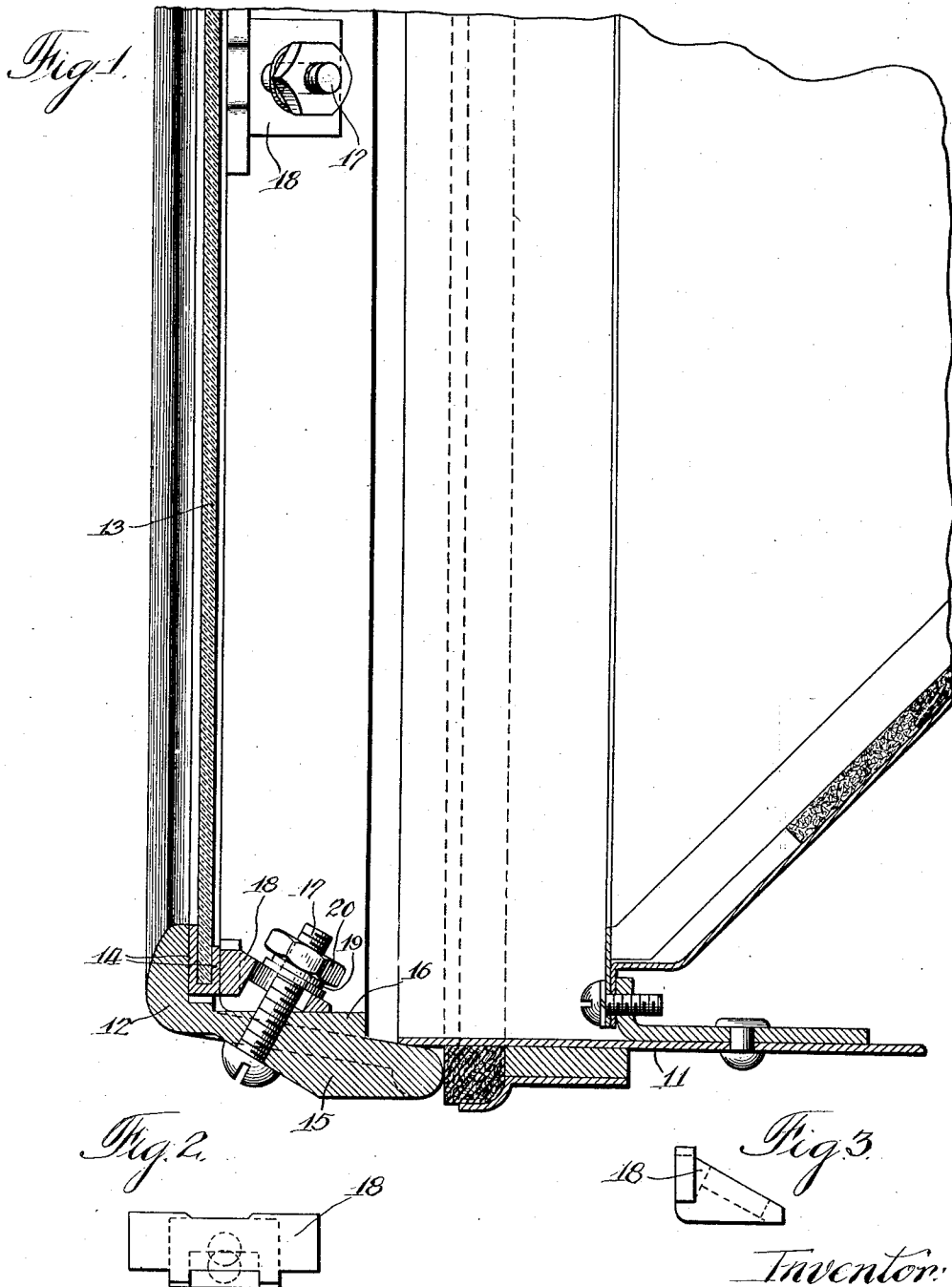
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HEADLIGHT

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## UNITED STATES PATENT OFFICE

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## HEADLIGHT

Original application filed March 7, 1928, Serial No. 259,736. Divided and this application filed November 8, 1929. Serial No. 405,581.

This invention relates to headlights of the type commonly used on locomotives and the like, and has particular relation to means for holding the front glass or lens in headlights of this character.

The present application is a division of my copending application, Serial No. 259,736, filed March 7, 1928.

The primary object of this invention is to provide simple and improved means for holding the transparent medium, such as glass, in the headlight door in such manner that the glass may be held dust and water tight, while at the same time adjustment of the pressure of the glass against the door frame may be had from outside the headlight without opening the door thereof.

Other objects and advantages of the invention will appear from the following detailed description taken in connection with the accompanying drawings, in which:

Figure 1 is a fragmentary sectional view of a portion of a headlight showing the present invention embodied therein;

Fig. 2 is a front elevational view of a clamping member utilized to hold the front glass or lens in the frame of the headlight door; and

Fig. 3 is a side elevational view of the member shown in Fig. 2.

The headlight shown in Fig. 1 comprises the usual casing 11 which is open at its front end and is adapted to receive in closely fitting relation at said end a door 12. The door 12 constitutes a frame for a front glass or lens 13, the periphery of which is embraced by a gasket 14 of rubber or other suitably resilient material. This gasket 14 is shown as being of channel formation and constituting portions overlapping the marginal portions of each side of the glass or lens 13. It will be understood, however, that two separate gaskets, respectively disposed on the two sides of the glass 13, may be utilized instead of the single channel shaped gasket 14, if desired.

The rim portion of the door 12 is provided at suitable intervals with integral bosses 15 on the outside of said rim and at corresponding intervals with bosses 16 on the

inside of said rim. The outer surfaces of the outside bosses 15 are inclined with respect to the axis of the headlight casing, while the inner surfaces of the inside bosses 16 extend in place substantially parallel to the axis of the casing.

A hole is drilled through the rim of the door 12 substantially at the middle of each of the bosses 15 and 16 and extending entirely through said bosses along an axis substantially at right angles to the inclined outer surface of the outside boss 15, as shown in Fig. 1. These holes are of the proper diameter to receive bolts or screws 17 which are inserted from the outside of the door frame so that the heads thereof are accessible from outside the headlight casing.

The shank of each of the bolts or screws 17 extends through a slotted opening in a clamping member 18 which is of triangular cross-section, having a surface substantially parallel to the inclined outer surface of the corresponding outside boss 15 constituting the hypotenuse of such triangular cross-section. The inner extremities of the bolts or screws 17 are provided with washers 19 and nuts 20 whereby the clamping members 18 may be firmly locked in position by tightening the screws 17.

The bottom surface of each of the clamping members 18 bears against the inner surface of the corresponding inside boss 16 and the front surface of each of said clamping members bears against the inside of the gasket 14 to force the front glass or lens 13 against the bezel of the door frame 12. The construction of the clamping members 18 is shown in detail in Figs. 2 and 3, the former figure being a view of one of said members looking at the flat front surface thereof which bears against the gasket 14, and the latter figure being a side elevational view of one of these members.

It will be understood that a suitable number of the clamping members 18 will be provided around the periphery of the door frame 12 so that the front glass or lens 13 will be clamped in position at the proper intervals, two of such clamping members being shown

in the fragmentary view constituting Fig. 1 of the drawings.

As will be apparent from an examination of the structure disclosed, the screws or bolts 17 may be tightened from outside the headlight casing without opening the door 12 thereof. The effect of tightening these screws is to move the clamping members 18 with a wedge-like action toward the front of the door 12, whereby the front surfaces of said clamping members are firmly forced against the inner surface of the gasket 14. This action is effected by reason of the inclination of the hypotenuse surfaces of the triangular clamping members 18 in planes which are parallel to the outer surfaces of the corresponding outside bosses 15.

The contracting force between the outside surface of one of the bosses 15 and the inclined surface of the corresponding clamping member 18, caused by tightening the corresponding screw 17, causes the clamping member 18 to slide to the left, as viewed in Fig. 1, along the inner surface of the corresponding inside boss 16, and the slotted openings in the clamping members 18 are provided to accommodate such movement of the clamping members with respect to the securing screws 17. The resiliency of the gasket 14 will absorb the pressure applied by the clamping members 18 and thus hold the front glass or lens 13 firmly in its proper position.

The clamping of the glass or lens 13 in position in the manner disclosed produces an entirely tight joint between said glass or lens and the frame of the door 12 so that the internal parts of the headlight, including the reflector, the lamp bulb, etc., are properly protected from dirt and moisture. The feature of the construction whereby the clamping members 18 may be adjusted from outside the headlight casing without opening the door 12 permits the glass to be tightened when necessary to eliminate rattling in the shortest possible time without exposing the interior of the headlight to the external atmosphere. The replacement of the glass or lens 13 in case of breakage may be readily accomplished by opening the door 12 and removing the screws 17 and clamping members 18 so that the new glass and the gasket or gaskets therefor may be freely inserted, whereupon the clamping members, screws, washers and nuts are replaced and tightened.

The construction herein disclosed for holding a glass or lens in position in a headlight or similar device is particularly simple and effective and contributes materially to the sturdiness and reliability of such devices.

While only one preferred embodiment of the invention has been shown and described herein it will be understood that various changes and modifications may be made in the details of construction without departing

from the spirit and scope of the invention, as set forth in the appended claims.

What is claimed as new and is desired to secure by Letters Patent, therefore, is:

1. Means for holding a glass pane in a frame or the like comprising a plurality of retaining members substantially right-triangular in cross-section, a retaining screw passing through said members and also through the frame, said members being slidable with their bases on the inner periphery of the frame and abutting with their sides against the glass.

2. Means for holding a glass pane in a frame or the like, comprising a plurality of retaining members substantially right-triangular in cross-section, retaining screws passing through said members at right-angles to their hypotenuse surface and also through the frame, said members being slidable with their bases on the inner periphery of the frame and abutting with their sides against the glass.

In witness whereof, I have hereunto subscribed my name.

WILLIAM EDWARD RICHARD.