

No. 763,300.

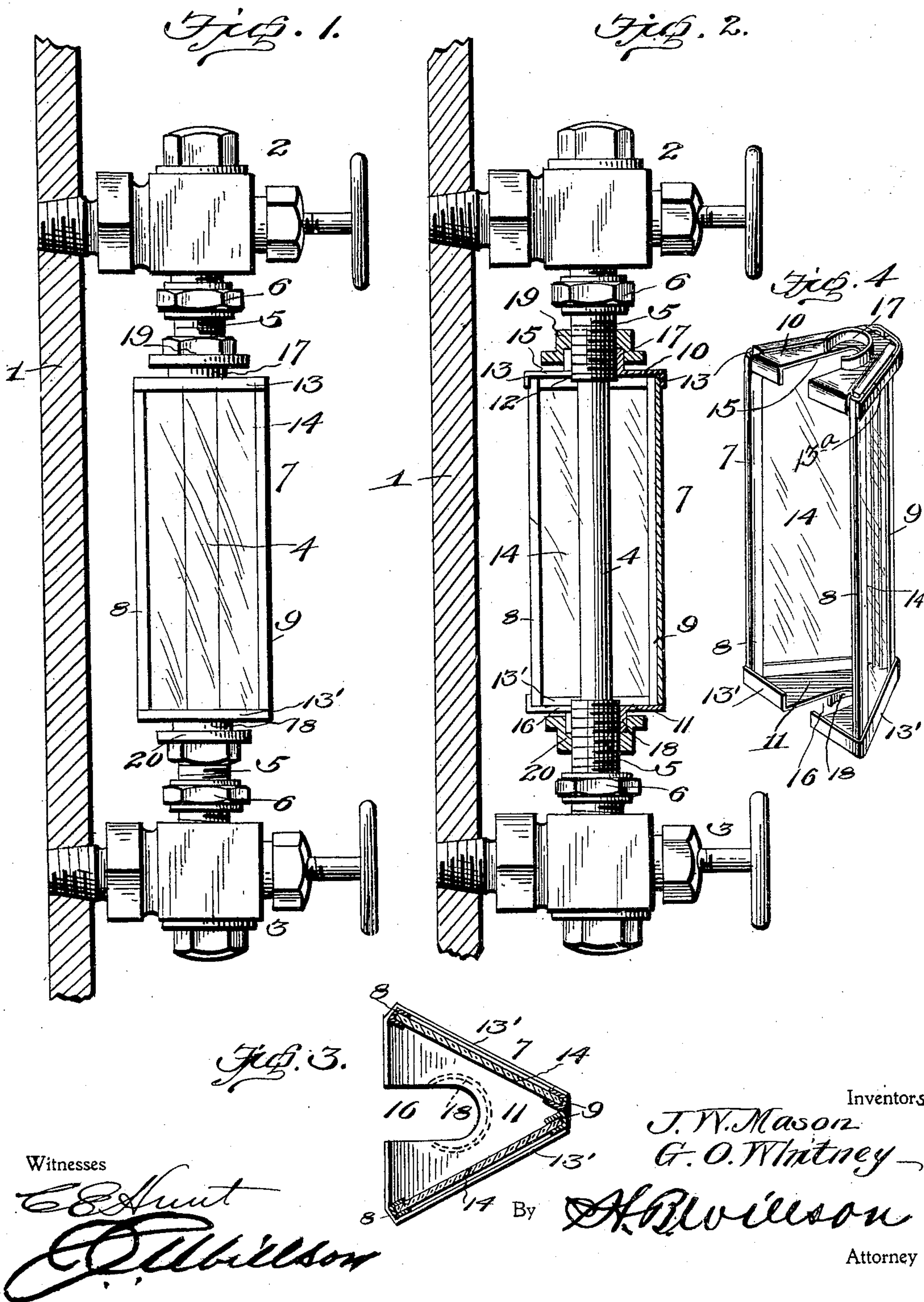
PATENTED JUNE 21, 1904.

J. W. MASON & G. O. WHITNEY.
LOCOMOTIVE WATER GLASS SHIELD.

APPLICATION FILED FEB. 11, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 5.

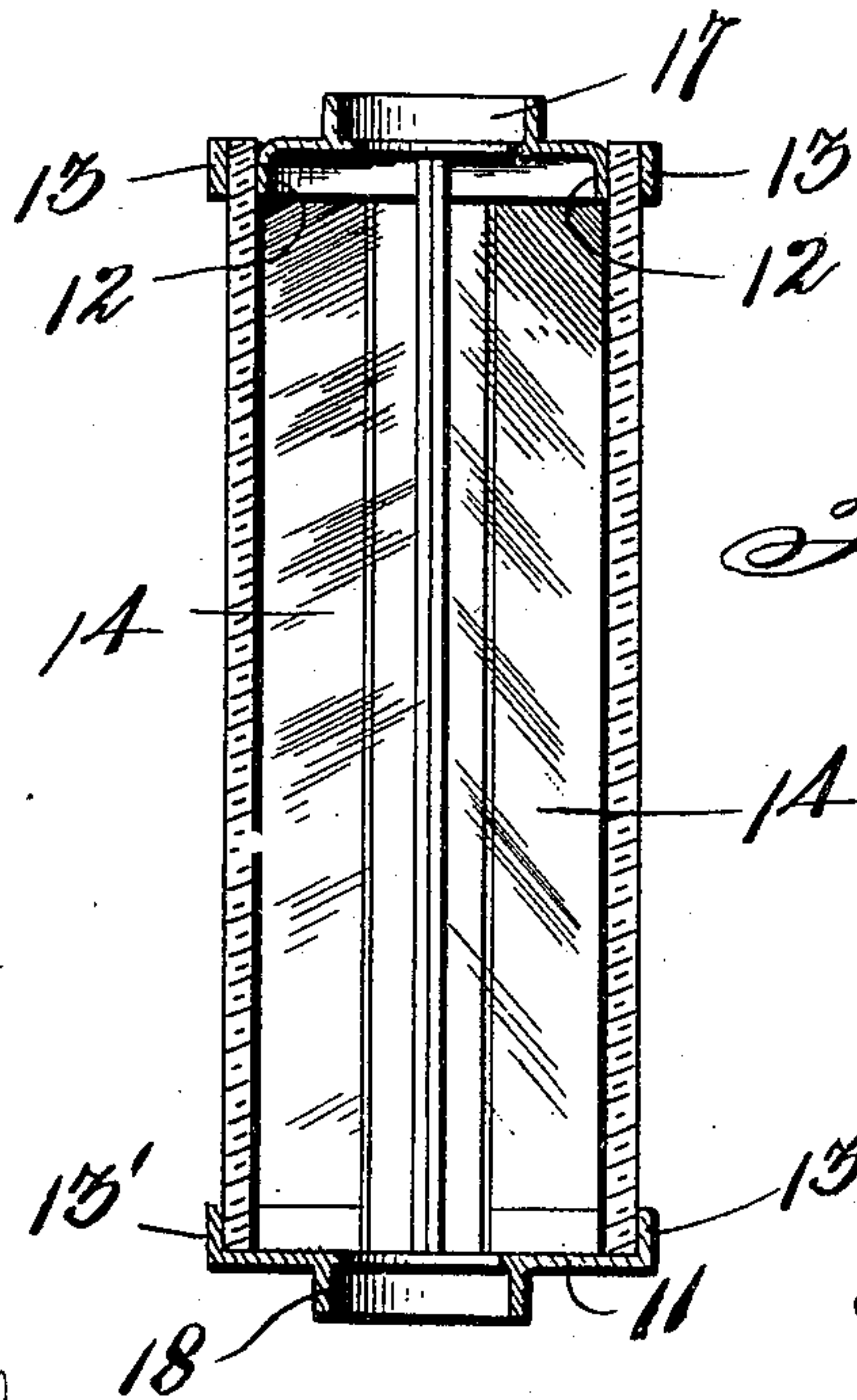
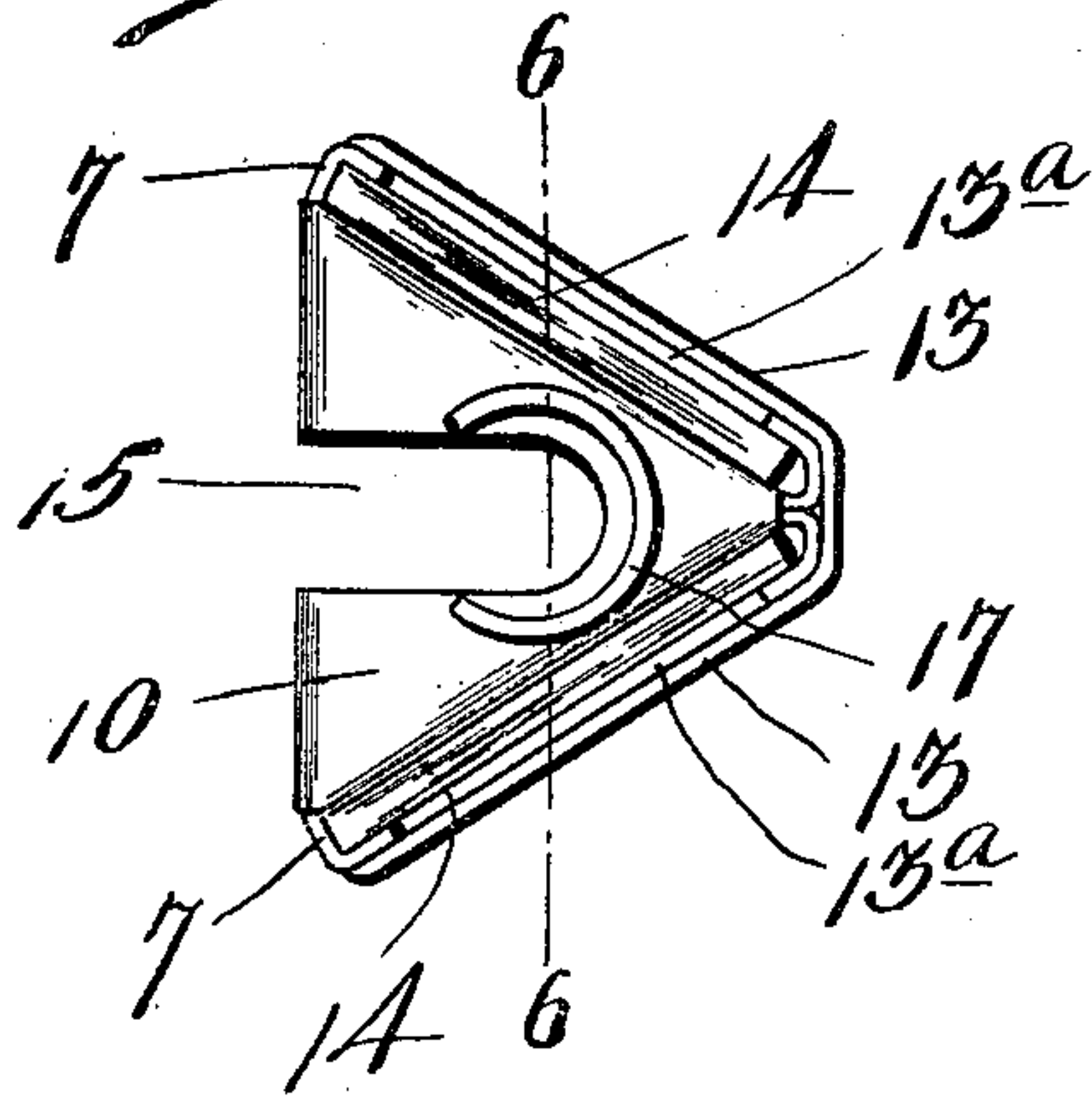


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN W. MASON AND GEORGE O. WHITNEY, OF BRAINERD, MINNESOTA.

LOCOMOTIVE WATER-GLASS SHIELD.

SPECIFICATION forming part of Letters Patent No. 763,300, dated June 21, 1904.

Application filed February 11, 1904. Serial No. 193,184. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. MASON and GEORGE O. WHITNEY, citizens of the United States, residing at Brainerd, in the county of Crow Wing and State of Minnesota, have invented certain new and useful Improvements in Locomotive Water-Glass Shields; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in shields for water-glasses of locomotives and other steam-boilers.

The object of the invention is to provide a shield for water-glasses whereby should the glass burst no injury would be done to persons in proximity of the same and which will also protect the glass from being broken by outward causes.

A further object is to provide a shield of this character which can be easily and quickly attached to a water-glass and through which the glass may be readily observed.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side view showing the application of the device to a water-glass attached to a boiler-head. Fig. 2 is a longitudinal vertical sectional view through the shield. Fig. 3 is a horizontal sectional view. Fig. 4 is a detail perspective view of the device removed from the water-glass. Fig. 5 is a top plan view of the shield. Fig. 6 is a vertical cross-section thereof on line 6 6 of Fig. 5.

Referring more particularly to the drawings, 1 denotes a portion of a boiler-head, 2 and 3 denote the upper and lower water-glass cocks, and 4 denotes the water-glass tube, which is adapted to have a water-tight engagement with exteriorly-threaded couplings 5, which are connected to the cocks 2 and 3 by packed nuts 6. These parts may be of the usual or any desirable construction.

To the gage-glass is attached the shield 7,

which consists of an open metal frame V-shaped in horizontal section and comprising inner and outer channel-shaped uprights or side bars 8 and 9, connected together at their upper and lower ends by triangularly-shaped plates 10 and 11. The edges of the upper plate 10 are turned down to form flanges 12, which engage the inner side of the upright channel-bars 8, and around said flanged edges and spaced from the same is a fixed holding-strip 13, forming with said flanged edges slots or guideways 13^a. The edges of the lower plate 11 are turned up to form flanges. The lower plate 11 is somewhat larger than the plate 10 and the flanged edges of the same engage the outer side of the upright channel-bars 8 and 9. The inner upright bars 8 are secured to the inner or base corners of the triangular plates 10 and 11, while the outer bars 9 are fixed together and to the apex of the plates 10 and 11.

Between the side flanges 12 of the upper plate and the holding-strip 13 and in the channel-shaped uprights of each side of the frame is fitted a thick glass panel 14, which rests on the lower plate 11 and is held in place at this end by the flange on said plate.

In the upper and lower triangular plates 10 and 11 are formed slots 15 and 16, which open at the inner edges of the plates and extend outwardly to a point slightly in advance of the center of the same, the outer ends of the slots being rounded, as shown. Around the rounded end of the slot 15 and secured to the upper side of the plate 10 is an upwardly-projecting flange 17, forming an open-sided ring, as shown. Around the rounded end of the lower slot 16 and secured to the lower plate 11 is arranged a downwardly-projecting flange 18, which is similar in construction and arrangement to the flange 17.

In applying the shield the same is slipped over the water-glass, with the open side of the same to the rear or adjacent to the boiler-head. The slots in the upper and lower plates of the shield are adapted to engage the threaded coupling members 5. On said members are arranged upper and lower recessed nuts 19 and 20, the nut 19 being adapted to be screwed down on the upper member 5 to en-

gage the flange 17 on the upper end of the shield, and the nut 20 is adapted to be screwed up on the lower member 5 to engage the flange 18 on the lower end of the shield, as shown, thereby securely holding the shield in place, but permitting the same to be readily removed when desired.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A water-glass shield consisting of an open frame, formed of vertically-disposed channel-shaped bars, triangularly-shaped plates secured to the upper and lower ends of said bars, inwardly-projecting flanges formed on said plates, a holding-strip secured to the upper end of said vertical bars and spaced from the edges of said upper plate, transparent panels arranged in said channel-bars and held in place at their upper and lower ends by the flanges on said plates and said holding-strip and means whereby said shield is held in place on said water-tube.

2. A water-glass shield consisting of an open-sided frame, slotted plates arranged at the upper and lower ends of said frame,

transparent panels arranged in certain of said sides, outwardly-projecting circular flanges formed on the outer faces of said slotted plates and recessed nuts arranged on the coupling members of said water-tube to be screwed into engagement with the flanges on said slotted plates to hold said shield in place, substantially as described.

3. A water-glass shield consisting of an open-sided frame, formed of vertically-disposed channel-shaped side bars, upper and lower triangularly-shaped plates connecting the upper and lower ends of said channel-shaped bars, slots formed in said plates opening through the inner base side of said plates and extending toward the apices of the same, upwardly and downwardly projecting circular flanges surrounding the closed ends of the slots in said upper and lower triangular plates, transparent panels arranged in the converging outer sides of said frame, retaining flanges and strips secured to said plates to hold the upper and lower ends of said panels in place, and means arranged on said water-glass to engage the circular flanges on the end plates of said frame to removably connect the shield to said glass, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOHN W. MASON.
GEORGE O. WHITNEY.

Witnesses:

R. G. VALLENTYNE,
CHAS. BUTTS.