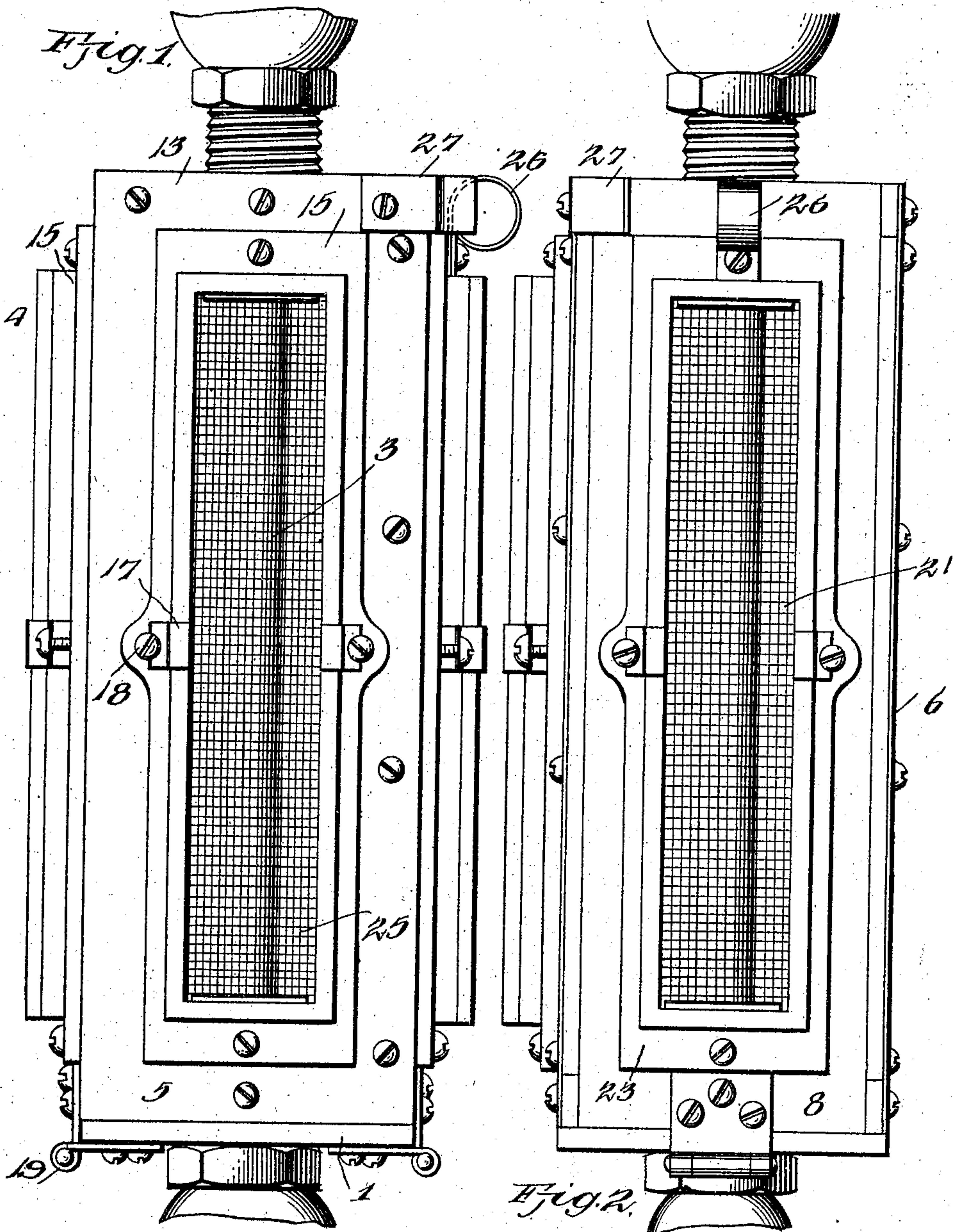


No. 816,016.

PATENTED MAR. 27, 1906.

G. C. JONES.
GUARD FOR WATER GLASSES.
APPLICATION FILED JUNE 24, 1905.

2 SHEETS—SHEET 1.



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Fig. 3

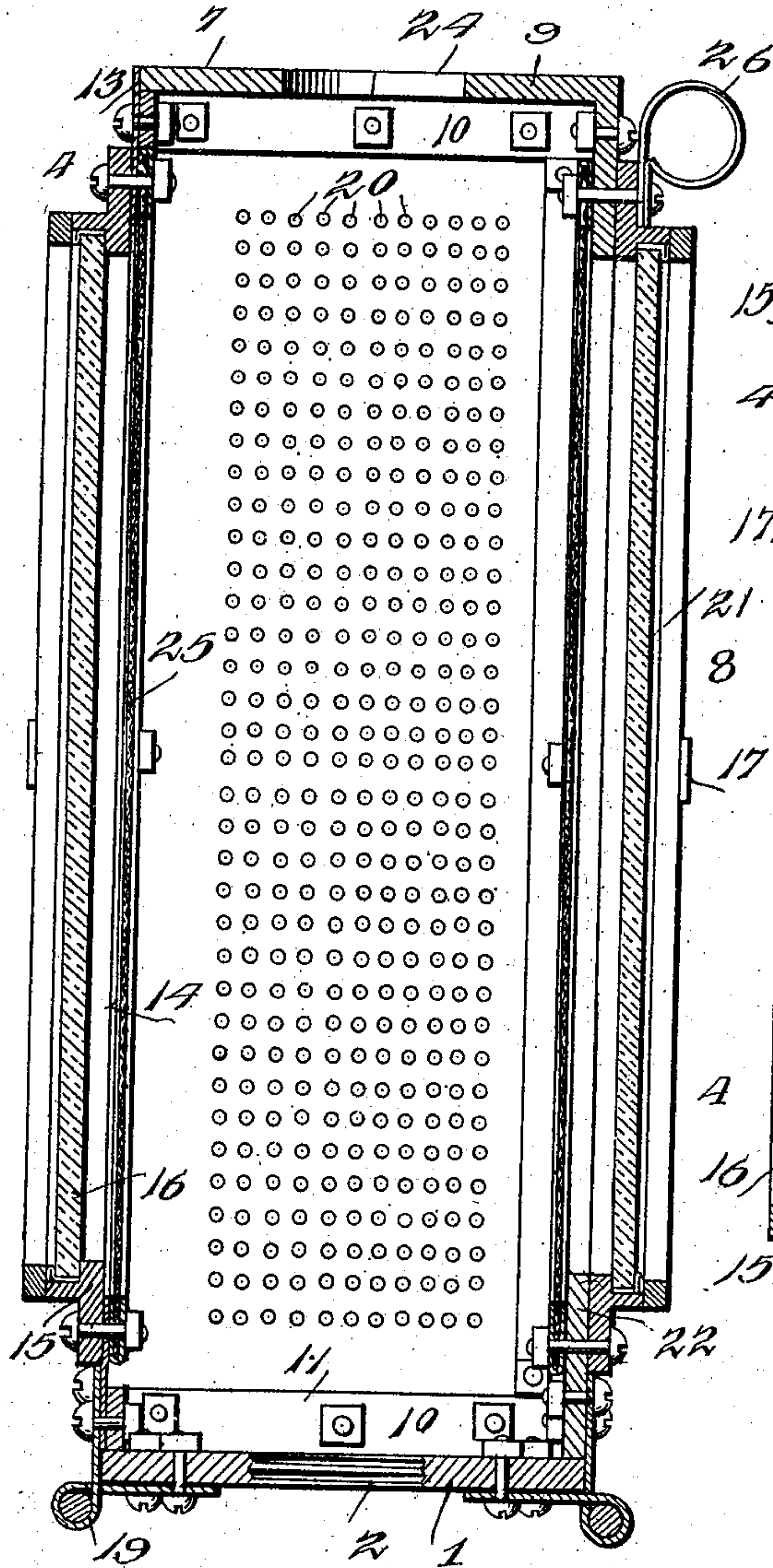


Fig. 4.

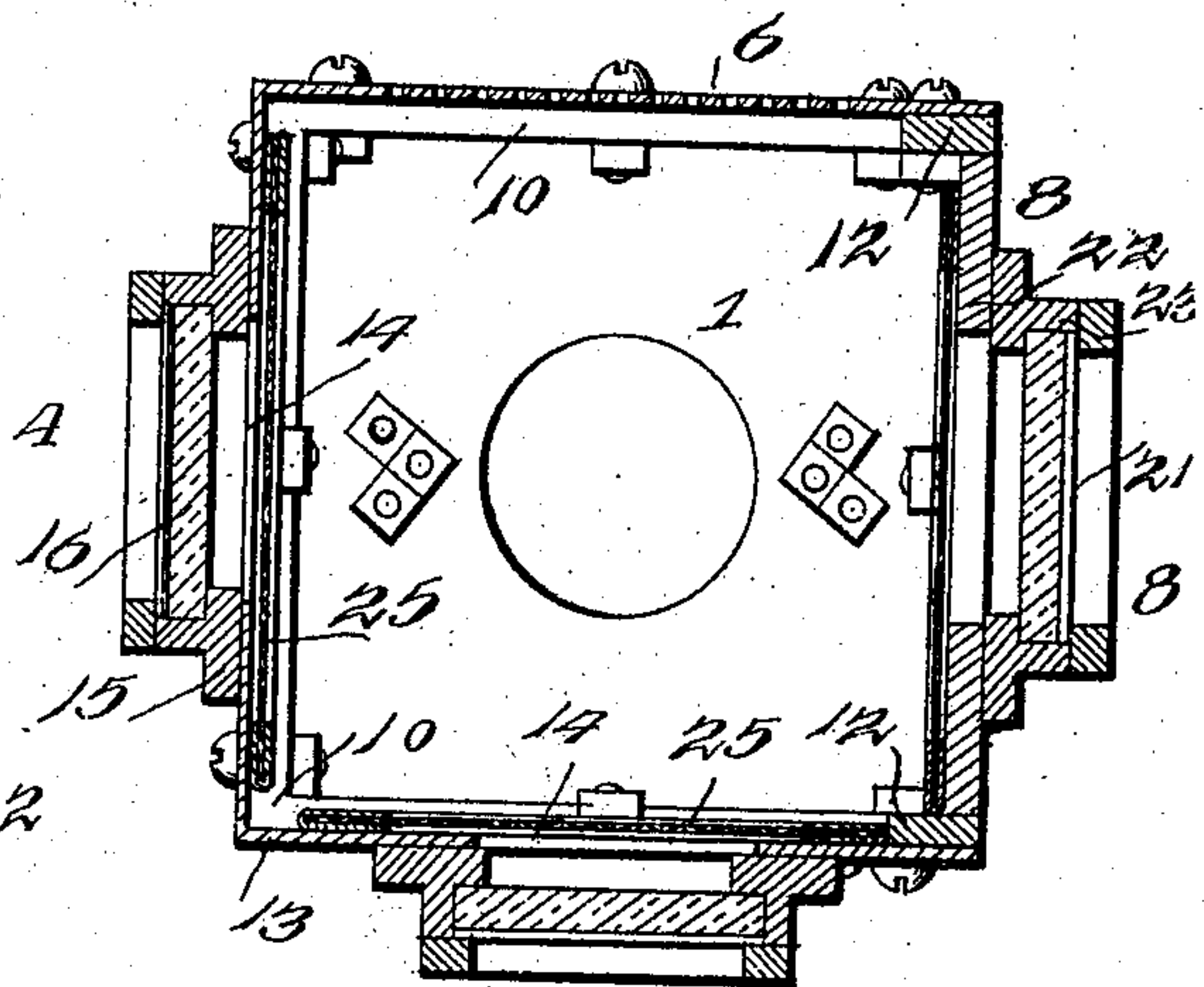
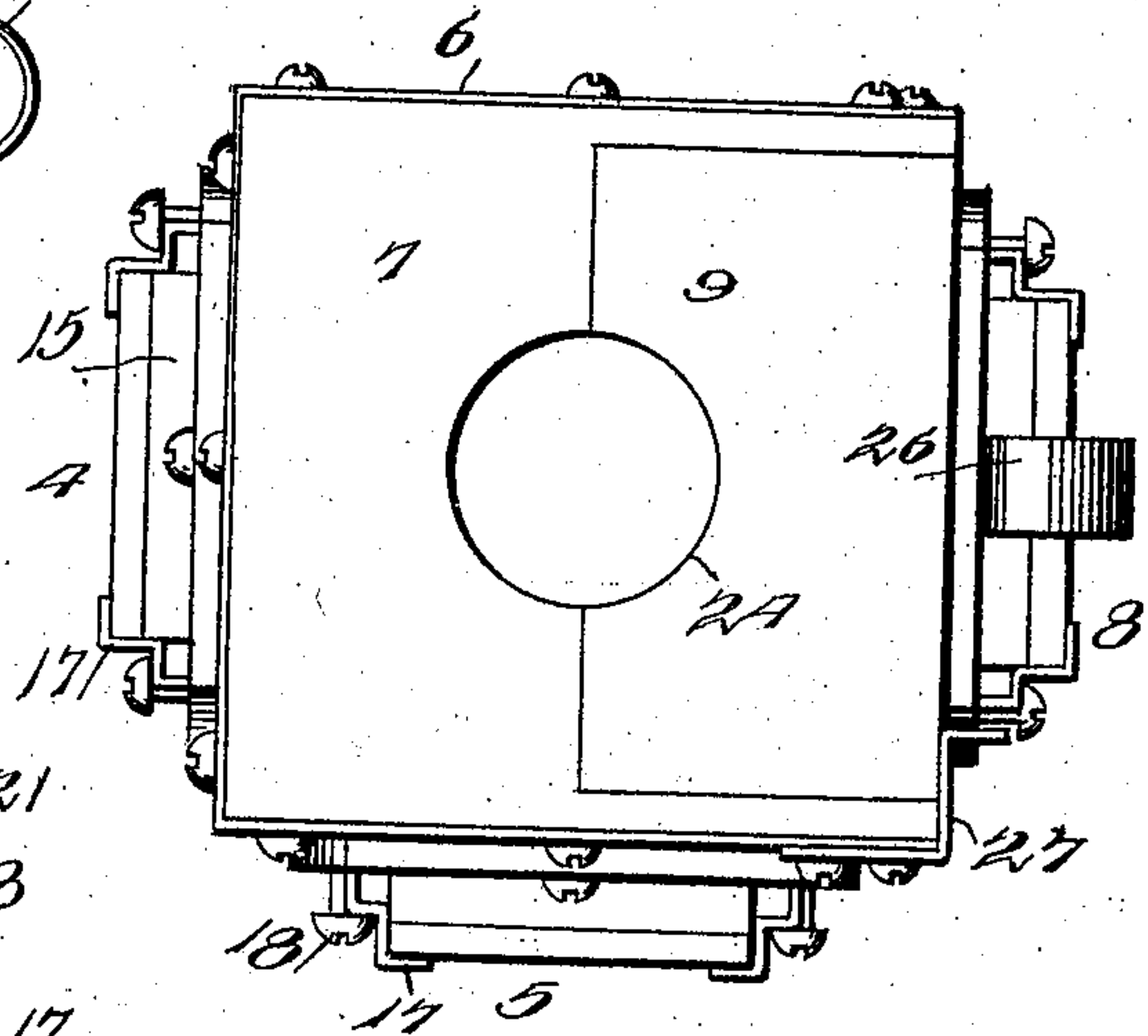


Fig. 5.

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GEORGE C. JONES, OF MANCHESTER, NEW HAMPSHIRE.

GUARD FOR WATER-GLASSES.

No. 816,016.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed June 24, 1905. Serial No. 266,800.

To all whom it may concern:

Be it known that I, GEORGE C. JONES, a citizen of the United States, residing at Manchester, in the county of Hillsboro and State of New Hampshire, have invented new and useful Improvements in Guards for Water-Glasses, of which the following is a specification.

The invention relates to an improvement in guards for water-glasses in use on high-pressure boilers, whereby to prevent injury to the engineer or others resulting from flying glass incident to the breaking of the water-glass.

The main object of the present invention is the production of a guard of the class described which is adapted to entirely envelop the water-glass and effectually prevent the escape of any flying particles of glass, the guard being constructed to render the water-glass wholly visible at all times and also to permit ready access to the glass when desired.

With these objects in view my invention consists in certain details of construction and combinations of parts, which will be described in the following specification, reference being had particularly to the accompanying drawings, in which—

Figure 1 is a front elevation showing my improved water-glass guard in place. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal vertical section. Fig. 4 is a top plan view; Fig. 5, a transverse section.

Referring to the drawings, my improved guard comprises practically three sections—a base-section, a body-section, and a door-section—all of which sections are movably connected together to permit ready access to the water-glass when desired without wholly removing the guard therefrom, as will be explained hereinafter.

The base-section comprises a metallic plate 1, centrally perforated at 2, the wall of which perforation is threaded for engagement with the lower valve-joint of the water-glass 3. The body-section includes one side 4, the front 5, and the rear 6 and also one-half of the top or cover 7 of the device, as clearly shown in the drawings. The door-section comprises the right-hand wall 8 of the guard, exactly similar to the left-hand wall 4, said door-section also including a half of the top

9, arranged to form, together with the parts 7 of the body-section, the completed top of the guard.

The body-section comprises upper and lower U-shaped frame-bars 10, coextensive with the front wall, left-hand wall, and rear wall of the guard, these frame-bars being joined by vertical frame-bars 12, forming the corners of the structure. The frame comprising the front, left-hand, and rear wall of the guard is covered by an inclosing strip 13 of sheet metal of sufficient width to inclose the frame on the three sides and of a length equal to the length of said frame. On the front and left-hand walls the plate 13 is formed with longitudinally-arranged central openings 14, through which an inspection of the water-glass is had. Each of the front and left-hand side walls of the opening 14 is bounded by a metallic window-frame 15, designed to receive a window 16, directly overlying the opening 14. A clamping-frame rectangular in plan and practically coextensive with the window-frame is designed to be secured thereon through clamping member 17, removably secured to the window-frame by screws 18. The clamping members are of slightly-greater width than the window-frame members, whereby said clamping-frame partially overlies the window proper and when held in position by the screws 18 and clamping member 17 prevents independent movement of the window proper. It will thus be noted that the body-section of my improved guard includes three sides thereof as an integral part and that two of these sides are formed with windows identical in construction and arrangement through which the water-glass may be readily inspected. The left-hand half 7 of the top is also integral with the body-section, and said section as a whole is hinged at 19 to one side of the base-section 1, the hinged joint preferably underlying the left-hand wall of the guard, whereby when said body-section is moved on its hinged joint it will swing in a direction opposite that of the door to be described.

The rear wall 6 of the guard is without the window described, the sheet-covering of the frame at this point of the guard being simply perforated at 20 for the greater portion of its surface, as clearly shown in Figs. 3 and 5.

The door-section comprises a metallic plate

coextensive in length with the walls previously described, but of a width to fit within the free ends of the front wall 5 and the rear wall 6. The door-section is provided with a window 21, secured within a frame 22 and held by a clamping-frame 23 exactly in accord with the windows previously described. The half 9 of the top of the guard is formed integral with the door-section and is arranged to contact with the half 7 of the body-section, forming together therewith a complete top for the guard, each section being formed with a semicylindrical depression 24 in its free edge to encircle the valve 2 at the upper part of the water-glass.

A screen-frame 25, constructed of ordinary metallic screen bounded in an edge frame, is suitably secured integrally of the front and side walls of the guard, each frame being secured directly to the material of the wall or preferably by bolts and arranged to overlie the opening therein. This screen is effective in preventing the breaking of the windows in the respective walls by the flying particles of glass.

A finger-grip 26 is secured to the door-section near the upper end, and a latch 27 is secured to the upper edge of the forward wall and arranged to be moved down outside the door-section when the latter is in place, whereby to prevent accidental separation of the parts. In use the base-plate 1 is secured in place on the lower valve 2 of the water-glass, the connection being preferably a threaded one, as illustrated. The body-section and door-section are then swung together to envelop the water-glass, as will be apparent from the drawings, the catch 27 being moved to locking position to prevent independent movement of the sections.

When thus arranged, it will be noted that in the breaking of the water-glass the engineer or others are protected from flying particles of glass and that the windows of the guard are also protected from breakage under these circumstances by the screens 25. The perforations 20 in the rear wall of the guard are important in the construction, for the reason that they permit the ready escape of the live steam feared on breaking the water-glass, and as these perforations are located in the rear of the guard—that is, adjacent the boiler—and the guard otherwise completely envelops the glass it is evident that the engineer will be in a manner protected from such escaping steam and be enabled thereby to reach his controlling-valves without danger of scalding.

When desired to inspect or replace the water-glass, the catch 27 is moved to inoperative position and the body-section and door swung in opposite directions on the base 1, thus completely exposing the water-glass and permitting its renewal or packing, as may be

necessary. It will be noted that in this operation of the guard the same is not detached or removed from its initial position with relation to the glass and may be swung to operative or closing position with a minimum of exertion.

The guard of my invention is simple in construction and of few parts and has been demonstrated thoroughly efficient in practice, and when once it has been applied with relation to the glass it need not be removed for any purpose, as the parts thereof are readily movable to wholly space the glass when desired.

Having thus fully described the invention, what is claimed as new is—

1. A water-glass guard comprising a base-section, a body-section and a door-section, both of said latter sections having hinged connection with the base-section.

2. The combination with a water-glass, of a guard therefor completely enveloping the glass and comprising a base-section, a body-section hinged thereto, and a door-section hinged to the base-section.

3. The combination with a water-glass, of a guard therefor completely enveloping the glass and comprising a base-section, a body-section hinged thereto, and a door-section hinged to the base-section, the top of the guard being in two sections respectively integral with the body-section and with the door-section.

4. A guard for water-glasses comprising a base-section, a body-section including the front wall, side wall and rear wall of the guard, said body-section being hinged to the base-section, and a door-section including the opposite side wall of the guard and hinged to the base-section, said front and side walls being provided with windows, and screens secured to the walls to protect the windows.

5. A guard for water-glasses comprising a base-section, a body-section including three walls of the guard, and a door-section including the remaining wall of the guard, the rear wall of the guard being perforated the top of the guard being formed by a portion of the body-section and a part of the door-section.

6. A water-glass guard comprising a base-section, a body-section including three walls of the guard and a section of the top, said body-section being hinged to the base-section, and a door-section including the remaining wall of the guard and the remainder of the top.

7. A water-glass guard comprising a base-section, a body-section including three walls of the guard and a section of the top, said body-section being hinged to the base-section, and a door-section including the remaining wall of the guard and the remainder of the top, and means to secure said door-section in closed position with relation to the body-section.

8. A water-glass guard comprising a base-

section, a body-section including three walls of the guard and a section of the top, said body-section being hinged to the base-section, a door-section including the remaining wall
5 of the guard and the remainder of the top, means to secure said door-section in closed position with relation to the body-section, the front wall and edge of the side walls being provided with window-frames to receive a

window, and clamping-frames to secure the window in place, the rear wall being perforated.

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

GEORGE C. JONES.

Witnesses:

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GEORGE I. McALLISTER.