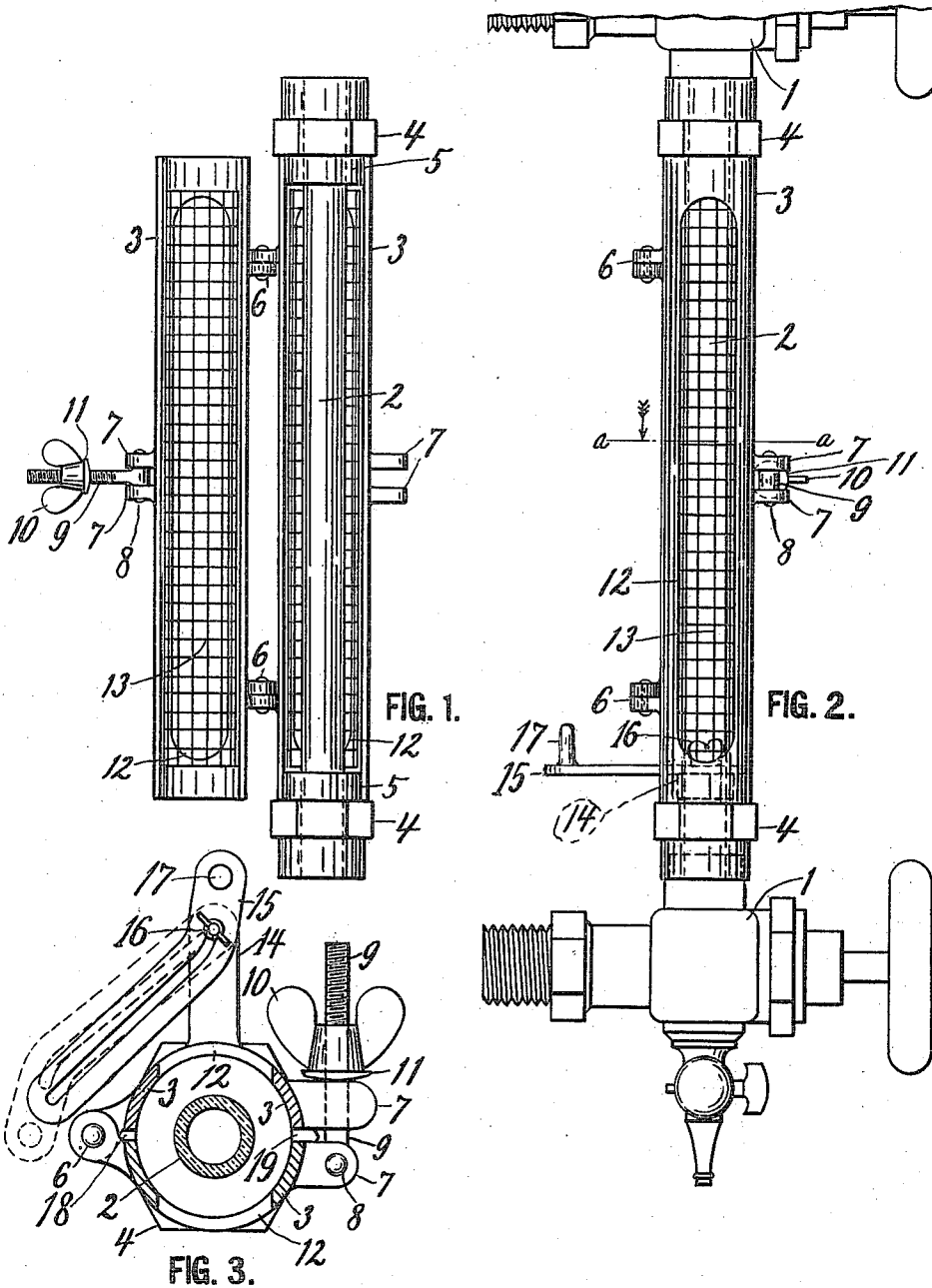


G. MOSER.
WATER GLASS GUARD.
APPLICATION FILED APR. 19, 1909.

986,199.

Patented Mar. 7, 1911.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE MOSER, OF MINNEAPOLIS, MINNESOTA.

WATER-GLASS GUARD.

986,199.

Specification of Letters Patent.

Patented Mar. 7, 1911.

Application filed April 19, 1909. Serial No. 490,926.

To all whom it may concern:

Be it known that I, GEORGE MOSER, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Water-Glass Guard, of which the following is a specification.

My invention relates to guards for water glasses on steam boilers and other places on which a vertically disposed glass tube is employed to indicate the height of the water or other liquid contained in the vessel. When pressure is carried within such boiler or vessel and the glass happens to break, the fragments fly in all directions and have often injured engineers or other persons.

The object of my invention is to prevent such accidents by a cheap but effective guard, through which the glass may be seen and which may readily be opened for cleaning the glass.

In the accompanying drawing, Figure 1 is a side elevation of a water glass provided with my improved guard, the latter being shown in opened position. Fig. 2 is a side elevation of the guard closed about the glass and provided with the usual connection by which water glasses are mounted on boilers. Fig. 3 is a cross section on the line *a-a* in Fig. 2.

Referring to the drawing by reference numerals, 1 designates the usual connecting valves by which a gage glass or water glass 2 of tubular form is mounted on the boiler. It will be observed that each of these connections has the usual stuffing box 4 with a reduced cylindrical portion 5.

My glass guard is made up of two similar semi-cylindrical shells or members 3, which are hinged together by hinges 6 and at their other edges are provided with lugs 7 to which is pivoted at 8 the eye of a bolt 9, which is adapted to be swung in between the lugs 7 of the other member and is provided with a thumb-nut 10 and a washer 11, so that by turning said nut the ends of the guard may be firmly adjusted about the reduced portions 5 of the stuffing boxes, and by unscrewing the nut and swinging the bolt outward the guard may be thrown open

and even removed during the wiping or other cleaning of the glass. Each member of the guard is provided with a longitudinal slot or sight opening 12, which is covered by a strong metallic netting 13 secured by solder or other means upon the inner side of the member. It is through these sighting slots and the meshes of the netting that the height of the water in the glass may be observed without the danger above described, for if the glass should break the guard and its netting will prevent flying of the fragments until the explosive blast is over and the streaming out of the contents of the boiler or other tank is checked by the usual automatic valves applied in the connections with the boiler, or by other means, (neither of which need here be shown or described).

Instead of the usual method of securing a bracket upon the boiler for holding a lamp near the water glass I provide my guard with a lamp-holding arm composed of two sections 14 and 15. The section 14 is fixed to or preferably cast integral with the lower end of the guard, and the section 15 is slotted for a screw 16 by which it is held adjustably upon the rigid section, so that the section 15, which has a stem 17 or other suitable means for holding a lamp, may be swung with the lamp into various positions, whereby the light from the usual reflector on such lamps may be thrown into one of the side slots of the guard or into the narrow slit 18, between the closed sections of the guard, as indicated by dotted lines in Fig. 3. Said slit 18, as also a narrow slit 19 opposite therefrom, are preferably also covered by projecting portions of the wire netting.

The guard may be turned around on the stuffing boxes with the main sighting slots in any direction desired, and the ends of the guard may embrace any portions of the stuffing boxes, whether they be cylindrical or not.

Having thus described my invention what I claim is:

A guard for water glasses composed of two metallic semi-cylindrical shells hinged together at one pair of edges and means at the unhinged edges for locking said edges together in an easily separable manner, said

shells having each a longitudinal sighting slot, a metallic netting covering the slot and secured to the edges of said slot in each shell upon the inner side thereof, and means for
5 holding a gage glass centrally in said shell; the latter means consisting of stuffing boxes arranged at the ends of the gage glass and provided with cylindrical extensions that are concentric to the glass and adapted to enter into the ends of the cylindrical shell of 10 the guard.

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

GEORGE MOSER.

Witnesses:

H. C. LEHMAN,
FRED W. PARKER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
