(No Model.)

J. RAMSEY.

SODA FOUNTAIN.

No. 475,890. Patented May 31, 1892.

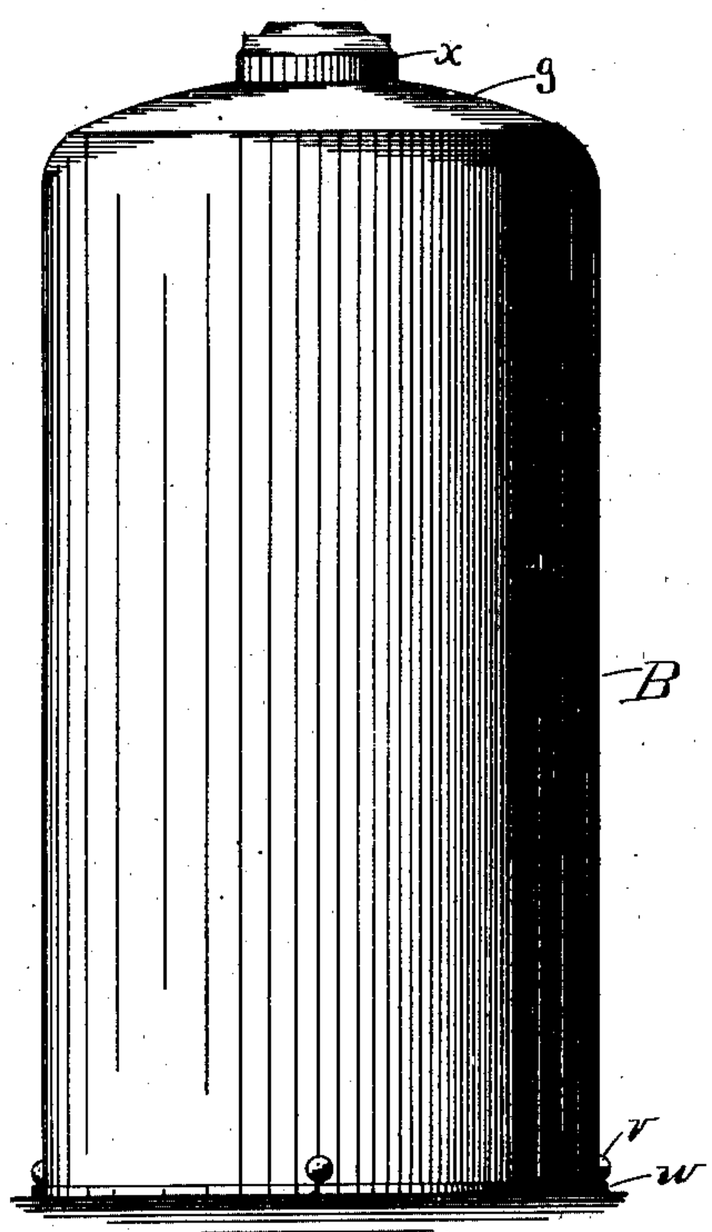

Fig. 1.

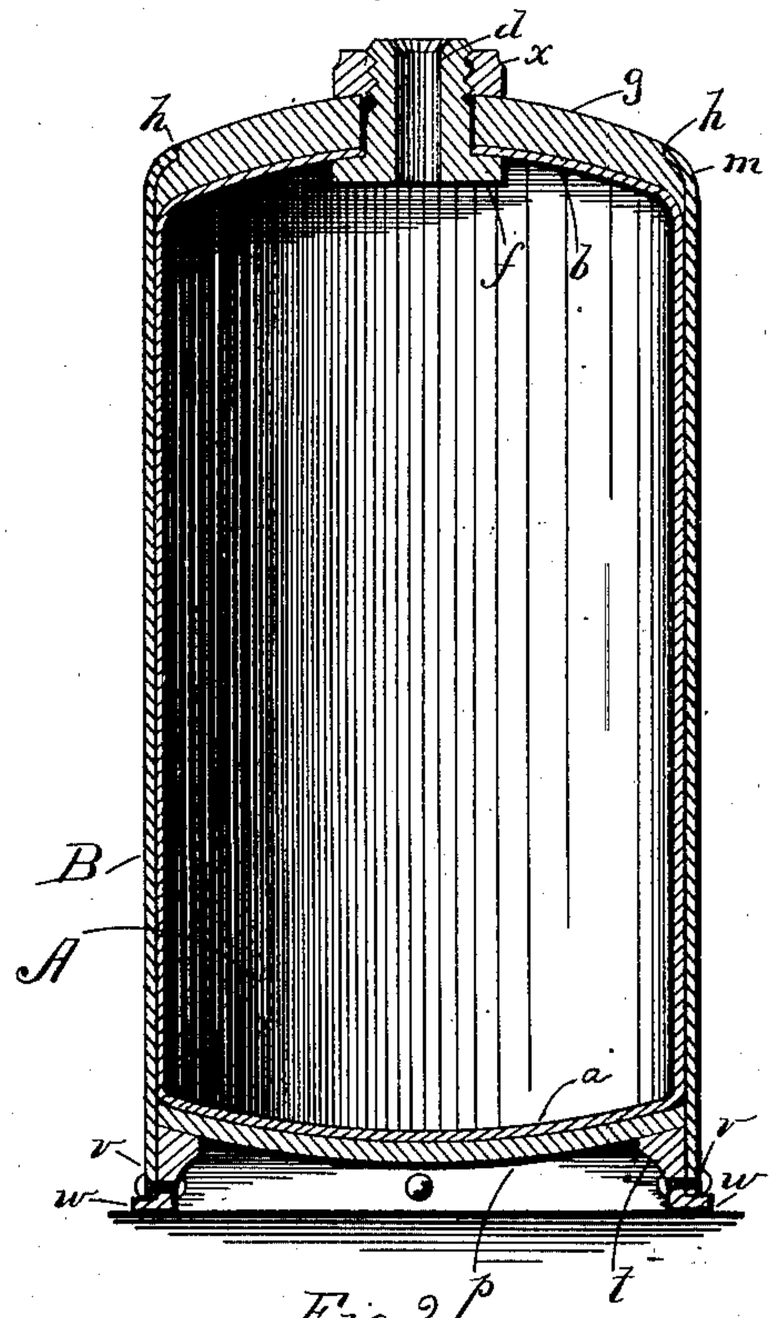

Fig. 2.

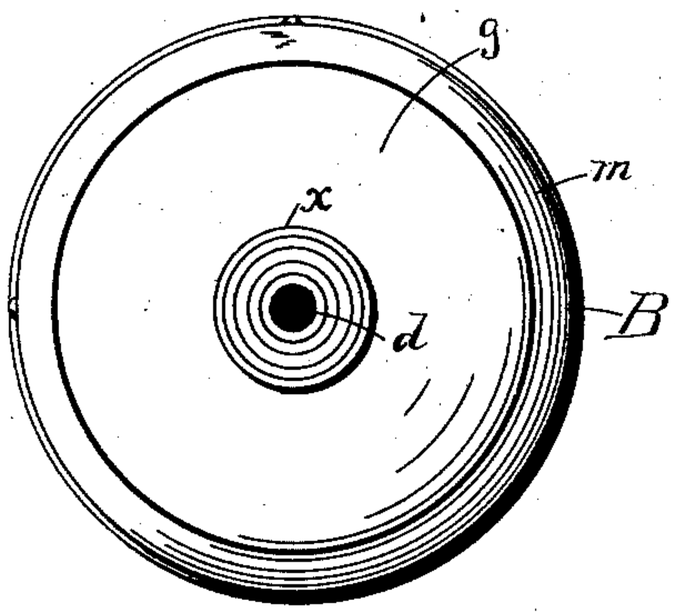

Fig. 3.

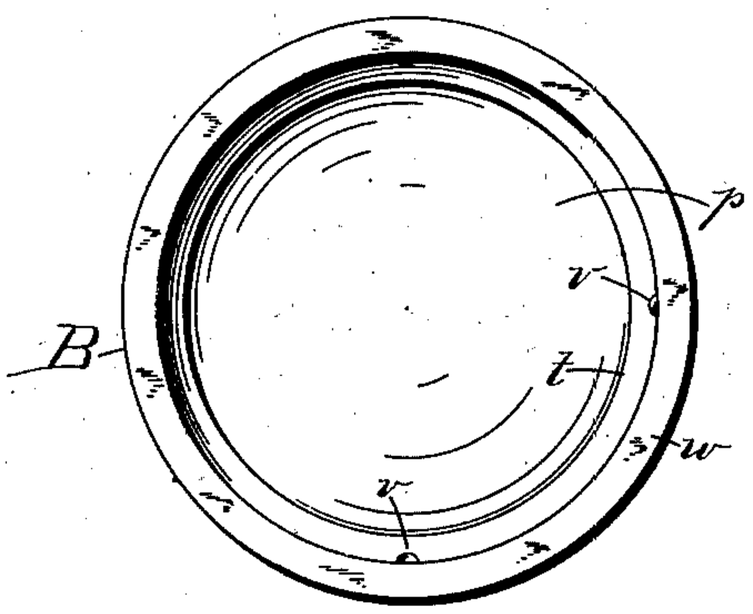

Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

JONATHAN RAMSEY, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-THIRD TO HORACE D. GOVE, OF SAME PLACE.

SODA-FOUNTAIN.

SPECIFICATION forming part of Letters Patent No. 475,890, dated May 31, 1892.

Application filed June 1, 1891. Serial No. 394,656. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN RAMSEY, of Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Soda-Fountains, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved fountain; Fig. 2, a vertical transverse section of the same; Fig. 3, a top plan view, and Fig. 4 a bottom plan view, of the fountain.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to the construction of fountains for containing carbonated liquors charged under high pressure. An ordinary form of such fountains is constructed with an inner casing of block-tin and an outer casing of copper or copper-plated metal, cylindrical in shape. The longitudinal edges of the sheets forming this cylindrical body are overlapped and riveted together. The bottom consists of a convex cap inserted in one end of the cylinder and riveted or soldered thereto. The head consists of a similarly-shaped cap inclosing the opposite end of the cylinder and riveted or soldered thereto. In another ordinary form the bottom cap also incloses the cylinder end, the parts being in this case secured together by brazing or soldering and a flaring circular foot being brazed to said bottom. These forms are cumbersome and of unnecessary weight, it being impracticable to lighten the structure and retain the requisite strength. The expense of construction is also great, it being required that the parts be formed separately and in one form drilled to receive the rivets, while in the other form great care is necessary in fitting that the parts may be properly brazed. In the riveted form the acid in the contents attack the overlapped seam and the rivet-heads in a short time wear through the block-tin lining or inner case, exposing the iron of the outer case to the action of the gas, which rapidly discolors the liquid contained in the fountain and renders it unfit for use. In the brazed form the joints rapidly become loose from accidental blows or jars in handling the fountains, causing them to leak and frequently so far weakening them that the heads are blown off from the cylinder by the pressure of gas in the liquor. The force of the gas is greatly increased by shock or agitation of the liquor in which it is contained, and seeking the weakest point causes the soldered cap-joints to give way. The rivet-heads and overlapping seams of these forms also present uneven surfaces on the fountains, rendering them more liable to shock and less serviceable.

My invention is designed to overcome these and other objections, and in carrying it out I make use of means which will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the inner casing or lining of the fountain and B the outer casing. In forming the lining or inner casing, which is constructed of block-tin, the cylinder is drawn or spun from a single sheet, the bottom *a* and head *b* being formed integral therewith in the ordinary manner. Said head is provided centrally with a nipple-opening. The nipple *d* is exteriorly screw-threaded in the ordinary manner and flanged at *f* to engage the inner face of the head *b*. Said nipple is brazed in said head. A thick circular convex block of metal *g*, conforming to the outer surface of said head, is loosely disposed thereon around said nipple and is provided in its edge with a peripheral recess *h*. The outer casing B is of metal drawn or formed without seam, in which the lining tightly fits, one end of said casing being provided at its upper end with an inturned flange *m* to enter the rabbet *h* in the block *g* and its opposite end projecting beyond the bottom *a* of the lining. The bottom comprises a circular sheet *p* of steel, convex and of greater thickness than the cylinder. Said sheet fits closely into the casing or cylinder B in engagement with the lining bottom *a*, avoiding any overlaps in these parts. A clamping ring or truss *t* is inserted in said casing and secures said convex bottom in its place, thereby forming a tight joint. Said ring is secured by rivets, screws, or

soldering *v* to the outer casing below said convex head, and has an annular flange *w*, serving as a foot for supporting the fountain, said flange projecting laterally beyond the walls of the casing to form a guard therefor when handling the fountain. By constructing the fountain as described the weight is much lessened, while far greater strength is attained than in the ordinary constructions. Moreover, all danger of the liquid becoming discolored is avoided and liability of the heads being blown out or leaks starting is practically overcome. The block *g*, being tightly held against the lining head *b*, serves to reinforce said head and prevents injury thereto. By mounting said block as described only a smooth surface is in engagement with the lining and on the outer side of the fountain.

In my method of attaching the bottom and reinforcing the head no overlapping seams project within the fountain which can be attacked by the gas-pressure of the fluid contained in the case to force said seams through the lining or inner casing. The bottom being reinforced in like manner by the block *p* the lining A is protected in all parts from injury.

Having thus explained my invention, what I claim is—

1. A soda-fountain comprising an inner seamless metallic cylinder having an integral convex bottom and head, a convex block covering said head, a metallic casing inclosing said cylinder and provided with an inturned flange at the top overlapping said block, and a bottom secured to said metallic casing and supporting the bottom of said cylinder, substantially as described.

2. A soda-fountain comprising an inner seamless metallic cylinder having an integral convex bottom and head, a convex block covering said head and provided with a peripheral recess, a metallic casing inclosing said cylinder and provided at its upper end with an inturned flange extending into said recess and overlapping the outer portion of said convex block, and a bottom secured to said metallic casing and supporting the bottom of said cylinder, substantially as described.

JONATHAN RAMSEY.

Witnesses:
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JOSHUA BROTHERS.