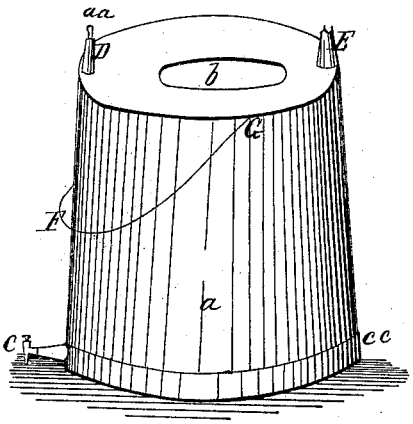
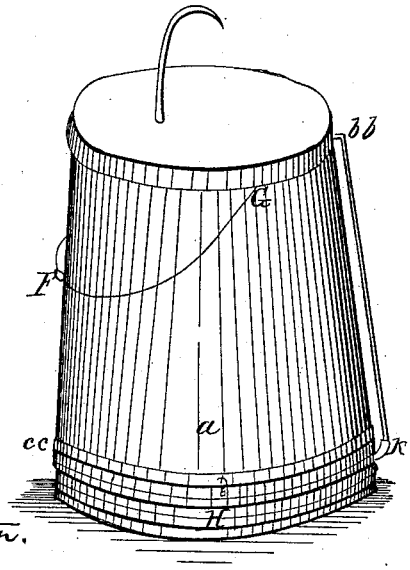
D. Gay,

Portable Soda Fountain.

No. 6,393. Patented Apr. 24, 1849.





Witnesses;

Edwd Gotwo

Edward Morton.

Inventor;

David Gay

UNITED STATES PATENT OFFICE.

DAVID GAY, OF BATH, MAINE.

PORTABLE BEER-FOUNTAIN.

Specification of Letters Patent No. 6,393, dated April 24, 1849.

To all whom it may concern:

Be it known that I, DAVID GAY, of Bath, in the county of Lincoln and State of Maine, have invented a new and useful Portable Fountain for the purpose of retaining, preserving, and a cheap and convenient mode of vending beer and other fermented and gaseous liquors; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in putting up beer, or other fermented and gaseous liquors, into portable fountains, for supplying vendors of such liquors, and being drawn from a stop-cock, retains the gas which is generated by the fermentation, and is necessary to keep the liquor good, and by this mode there is no loss sustained by the vender, as there frequently is by drawing a cork from a bottle or jug, and not only the loss of the liquor, but a large part of the gas escapes, which leaves the remainder almost worthless, while that drawn from the fountain retains an equal portion of the gas throughout. And having a refrigerator combined with the fountain, the liquor is kept cool and palatable for the consumer, at a small expense. There is also a gas receiver combined with the fountain, to prevent explosion, when the liquor is in a high state of fermentation; which gas receiver expands, and contracts, according to the quantity of gas. After the ice is applied in the refrigerator, the fermentation will partly subside, consequently the gas will diminish in proportion.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my fountains of metal, or any other suitable material. I generally make them of good tin plate, in a circular form, (*a* refers to the drawing,) nine inches deep, and eleven inches diameter at the bottom, and nine inches diameter at the top, the seams to be soldered on both sides where it is practicable. In the center of the top, I make a circular partition, *b*, as a refrigerator, half the diameter of the top, extending to the bottom, the partition has a bottom double seamed, and the upper end is double seamed to the top, and the bottom of the partition confined to the bottom of the fountain by three rivets at right angles, about $\frac{3}{4}$ of an inch from the sides, and soldered both sides. I have another mode of putting in the partition, so that it can be removed, to cleanse the fountain inside, I have the top made of hundred plate tin, (or heavier plate if necessary) and double seamed to the body, then where the hole is made for the partition, turn the edge over $\frac{1}{8}$ of an inch, then fit a rim of plate $\frac{1}{4}$ of an inch wide, round the hole to the edge that is turned over, after turning up the outer edge $\frac{1}{8}$ of an inch, then solder the rim to the top, then turn a flange out on the top of the partition wide enough to fit within the edge that is turned up on the rim, then fit a piece of plate about an inch wide, into the top of the partition, after turning out a flange the same width of the other, then solder them together, then spread a little soft putty or other suitable cement, or any suitable material round on the rim for packing. Then place the flange on the rim, the flange may be confined to the top by four or more small screw-bolts and nuts, placed at right angles. The bottom of the partition is confined to the bottom of the fountain, by a screw-bolt ($\frac{1}{4}$ or $\frac{3}{4}$ inch iron) and a nut. The bolt with a head an inch diameter passes through the center of the bottom of the partition, and the fountain, and the nut underneath, first putting a piece of leather on the bolt next to the head, then a piece on between the bottoms, and a washer under the nut. On one side of the fountain, next the bottom, I insert a metal stop cock (*c*) soldered and braced on the outside or inserted in any other suitable manner for drawing out the liquor, or another mode of drawing out the liquor, is to insert a tube about $\frac{5}{8}$ of an inch diameter, through the bottom of the partition, with a small flange, or bur, turned out, and soldered to the bottom, underneath. The tube is connected and soldered to one side of the partition extending to the top, where a stop-cock is fitted into the tube, above stop-cock I couple on an ornamental tube, with a screw or otherwise, which extends up through a neat cover, which I fit on over the top. Above the stop-cock C, on the top, I insert a smooth tube for a vent, D, as near the edge as practicable, $\frac{5}{16}$ of an inch diameter, and $\frac{7}{8}$ of an inch long, with a brace; opposite I insert another tube, E, in like manner, to receive a cork $\frac{3}{4}$ of an inch diameter, wired at the top, on the outside, to prevent a string slipping which I use for tying in the cord. At right-angle with the tubes, I attach a wire bail, with a wooden handle, F, the ends of the bail are at-

tached to the fountain, by two clamps G, made of a piece of plate, one inch wide, and two and ¼ inches long, half an inch from the center, bend the ends in square, then ¼ of an inch from the first bend, bend the ends out parallel with the main part, then make a hole in the center to hook the bail in, and solder the ends to the fountain. I then fit a hoop *c*, *c*, one inch wide, round the bottom of the fountain, and bur it on over the double seam of the bottom, and solder it, then fit inside of the hoop, a piece of board ⅝ of an inch thick, having the underside cut out about ⅜ of an inch deep, leaving about an inch, the full thickness, on the outer edge, then turn the edge of the hoop in on the wood, which confines it, and make a bottom for the fountain to rest on.

To make my gas receiver, &c., I fit a hoop on the bottom of the fountain, ¾ of an inch wide, after one edge is turned over and the other edge wired on the outside, then fit a head into the hoop ¼ of an inch from the edge that is turned over, and solder it tight, then make another hoop of the same diameter, with a head on one edge, and wired on the outside of the other, then take a strip of fine calf skin, or any other suitable material, 4 inches, or more wide, and of sufficient length to reach around the hoop, and lap about ½ an inch, then stick the ends together with a fine seam, or cement them with suitable cement, then make a small hose, *k*, two inches long, and about ⅜ of an inch diameter, and insert one end of it into the calfskin, about an inch from the edge, and stick it in, then draw the edge of the calfskin on to the wired edge of the hoop ½ an inch, first spreading a little soft putty, or other suitable cement, between the leather and the hoops, then draw the leather tight to the hoops, with a suitable waxed thread, wound on close, and after it is dry, varnish over the thread and edge of the leather, then fill the pores of the leather, with any suitable compound to make it air tight. I then make a tube, (*b b*,) about ⅜ of an inch diameter, the upper end, to communicate with the vent tube, by a smooth hole about $\frac{3}{16}$ of an inch diameter, above the top. The tube is soldered to the side near the stop-cock, and extends to within ¼ of an inch of the bottom, tapering a little at the lower end, with a thin packing, cemented on the tapes about ½ an inch. I then make another tube, one inch long, to fit on the part of the tube which is packed, air tight, the other end to be inserted into the end of the hose, and made airtight by a little cement on the tube, and the hose confined by winding on a waxed thread. I confine the gas receiver, to the fountain, by a hook and eye, on each side, or any other suitable manner, so that it can be shipped, and unshipped, at pleasure. I then paint the fountain with two coats of paint, and varnish. I cover some with cotton cloth cemented on, with a cement made of equal parts, of white, and red lead, and a portion of letharge, and boiled linseed oil, with as much pulverized charcoal as will stick to the metal. When covered in this manner I paint and varnish on the covering. I then put into the fountain two gallons of beer, when it is in a suitable state to bottle, and cork it tight, and fit a smooth wooden plug *a*, *a*, into the vent tube, having one side of the plug flat above the hole that communicates into the gas receiver, then insert the plug into the tube so as to close the hole, and let it remain eight hours, and when the temperature is up to summer heat, the gas will press hard on the fountain, then turn the flat side of the plug next the hole, and the gas will escape into the receiver and relieve the fountain. Then put the ice into the refrigerator, and after an hour or two it is ready for use, and as the weight of the fountain is on the gas receiver, the gas will recede back into the fountain as fast as required to force the liquor out. I use the fountains without the gas receiver, but as explosion has taken place in several cases, I consider it important for safety.

The dimensions given may vary to suit the operator.

To cleanse the fountain, when the partition is not made to remove, I put into each a half pint of ashes, and a quart of warm water, and shake them well, then turn it out and rinse them clear with cold water. This process will be necessary about once in three or four weeks, but they should be rinsed clean with cold water every time before filling.

What I claim as my invention, and desire to secure by Letters Patent, is—

A portable fountain, in form and arrangement, as herein described; that is to say, the combining therewith, a refrigerator, and a gas receiver, to prevent explosions and retain and preserve beer, and other fermented, and gaseous liquors in the manner and for the purposes set forth.

DAVID GAY.

Witnesses:
NATHAN GROTON,
EDWARD MARSTON.