April 27, 1926. 1,582,146

S. F. SPROUL

DRINK VENDING MACHINE

Filed Oct. 31, 1924 2 Sheets-Sheet 1

FIG. 2

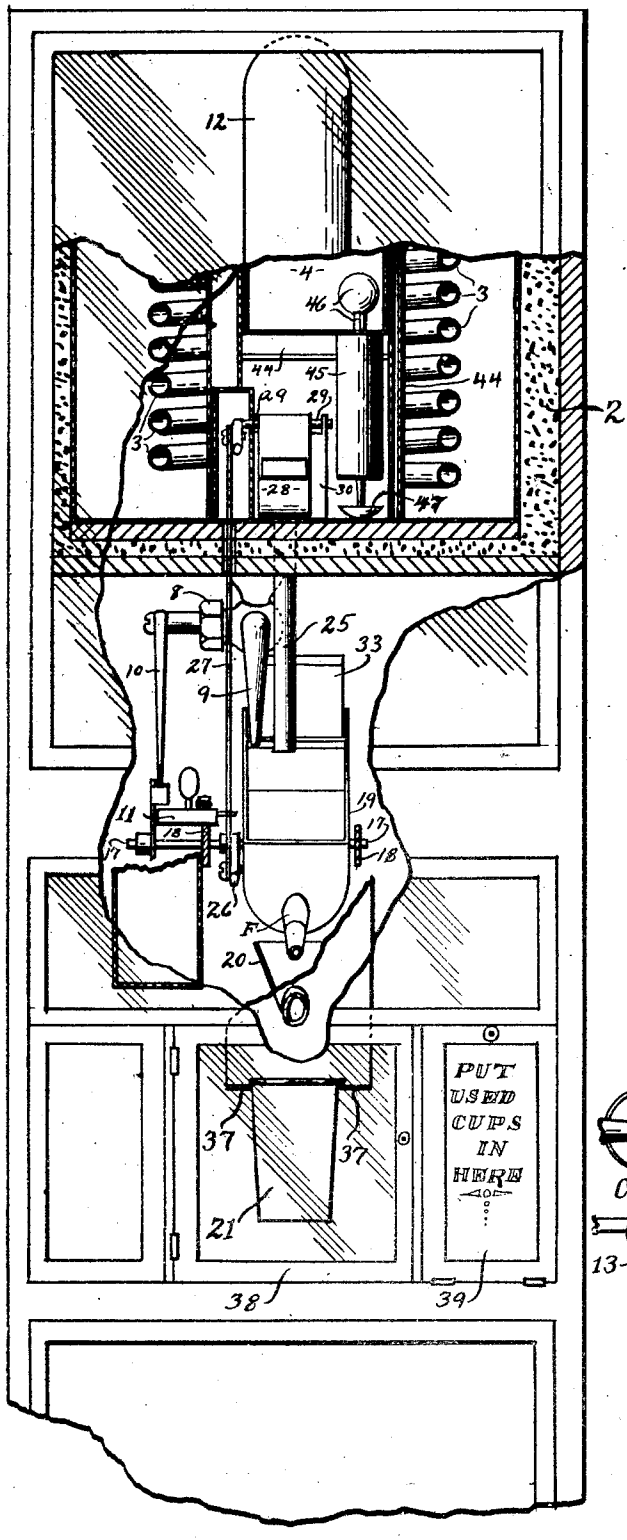
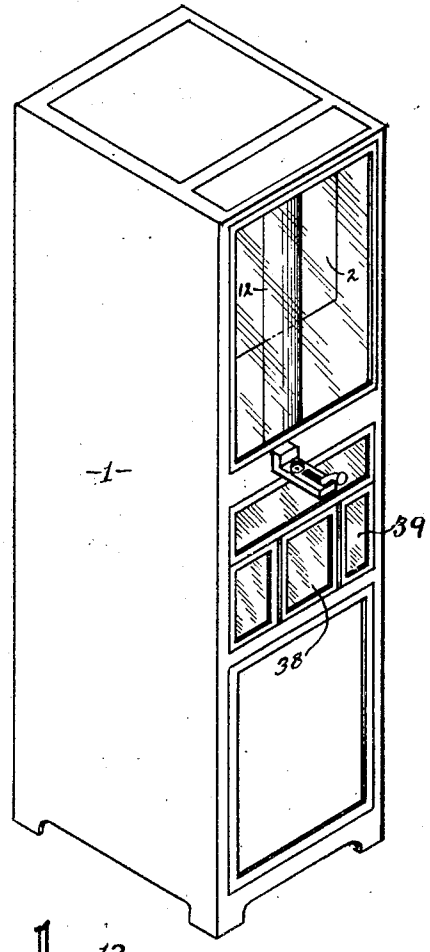


FIG. 1



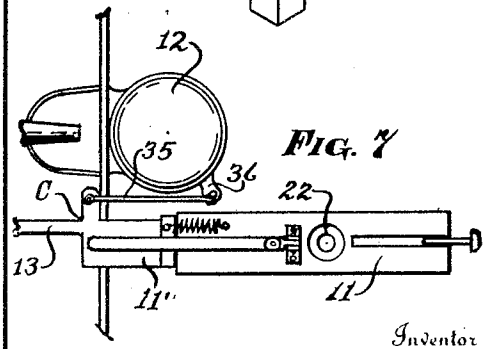


FIG. 7

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FIG. 3

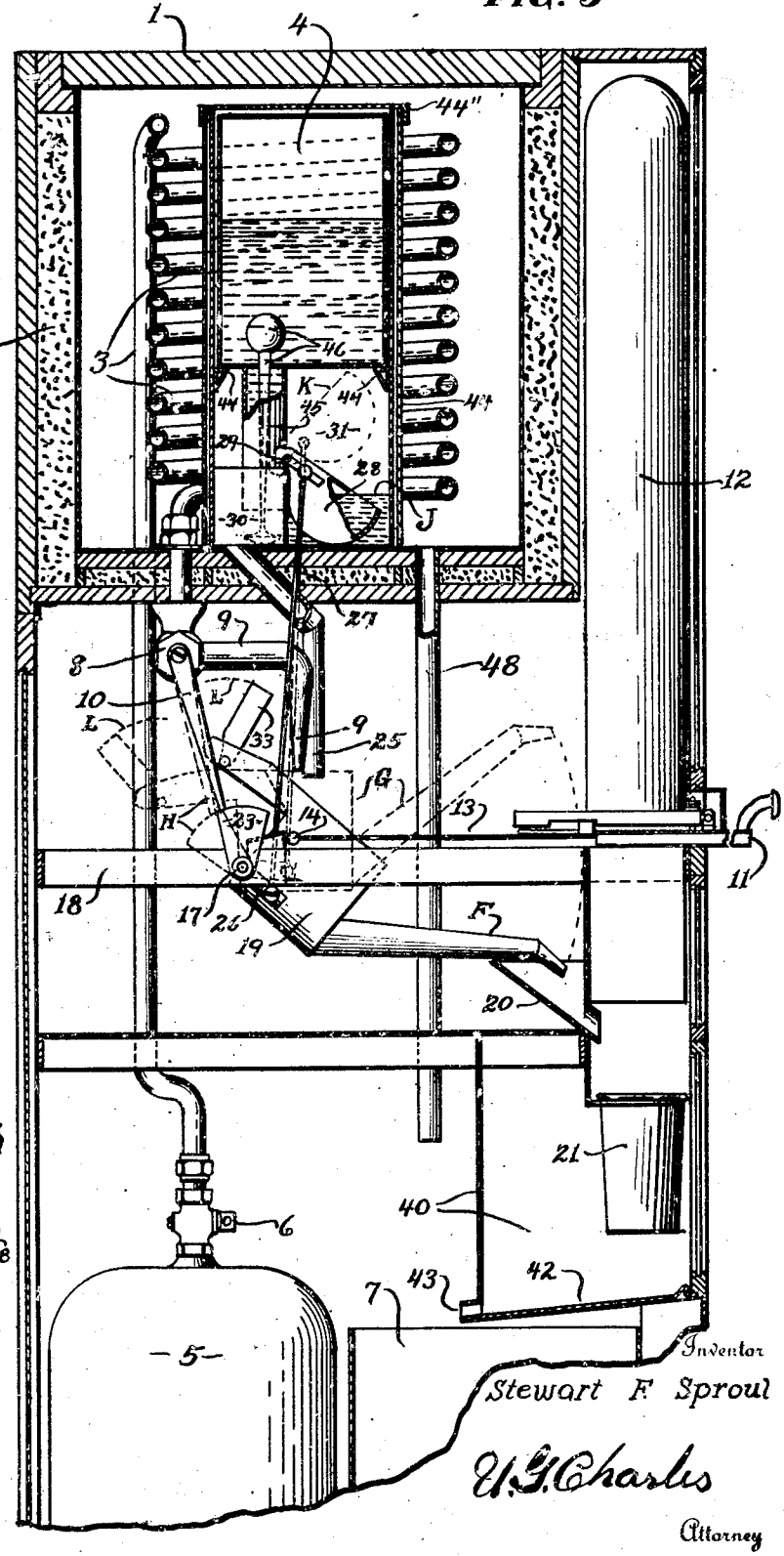


FIG. 6

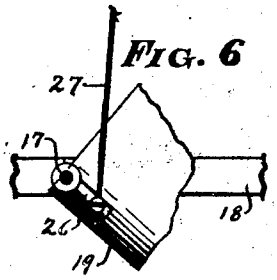


FIG. 5

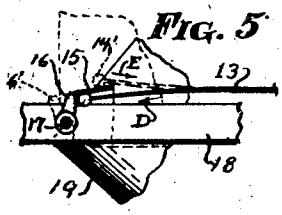
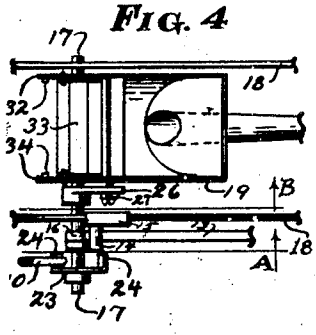


FIG. 4



Patented Apr. 27, 1926. 1,582,146

UNITED STATES PATENT OFFICE.

STEWART F. SPROUL, OF ELDORADO, KANSAS.

DRINK-VENDING MACHINE.

Application filed October 31, 1924. Serial No. 747,068.

To all whom it may concern:

Be it known that I, STEWART F. SPROUL, a citizen of the United States, residing at Eldorado, county of Butler, and State of Kansas, have invented certain new and useful Improvements in a Drink-Vending Machine.

My invention relates to a drinking fountain.

The objects of my invention are as follows;

First—To provide a drinking fountain in which all of the mechanism is housed for sanitary reasons.

Second—To provide a drinking fountain that is portable.

Third—To provide a drinking fountain to function as a vending machine, so that the drink can be obtained by placing a coin in its receptor, and the machine will be made to operate by pushing a lever.

Fourth—To provide a drink vending machine that will properly mix the drink and discharge it into a cup ready for the purchaser and also provide a vermin proof receptacle for the discarded cup which is concealed from view.

Fifth—To provide a drink vending machine having a receptacle for a sanitary cup in which the drink is dispensed, said receptacle having a door actuated by a spring as closing means for sanitary purpose.

Referring to the drawings which form a part of this application, Figure 1 is a reduced perspective view of the machine. Fig. 2 is a front view, parts removed for convenience of illustration. Fig. 3 is a vertical section side view. Fig. 4 is a detailed top view of the mixing cup and operating levers. Fig. 5 is a side view of the mixing cup taken on line A looking in direction of arrow. Fig. 6 is a side view taken on line B looking in direction of arrow. Fig. 7 is a top view of the cup container and the coin operated bar.

The mechanism hereinafter described is housed in a cabinet 1 the top portion of which is insulated as at 2, functioning as an ice chamber and contained therein is a cooling coil 3, encircling an air tight storage syrup container 4, hereinafter more fully described, the said coil having a downwardly extending pipe connecting with a carbonated pressure water tank 5, which is controlled by a valve 6 at the connection. The said cabinet has a door in the rear through which to pass the tank when a change is required and also through which the refuse receptacle is taken out when necessary to empty the contents thereof.

The said cooling coil has an outlet connecting with a valve 8 which has a spout 9, and a controlling lever 10. 11 is a standard make of a coin operated mechanism such as is used for vending machines and the construction and use thereof, I do not claim broadly. Likewise the sanitary cup container 12, and the mechanism for dropping the cups in position to be filled are well known. 13 is a strip of metal connecting to one member of the coin operating mechanism 11′ as at C, said strip functioning as a leaf spring and on the opposite end is a cross pin 14 adapted to engage on the sides of the guide member 15 said member being horizontally inclined so that said pin when travelling in the direction of the arrow D will engage with a lever 16, causing the shaft 17 to rotate so that said lever will be positioned as shown by dotted line 16′ at which point the pin 14 will spring up over the guide 15 by the action of the said leaf spring and come to rest on the top of the guide as shown by dotted line 14′. In this position, the coin member 11 may be pushed in without effecting the vending mechanism but when disengaged by the coin it will suddenly be drawn in the direction of the arrow E disengaging on the top of the said guide, taking its normal position shown in Fig. 3, at which time the mechanism may be operated.

The said shaft 17 is rotatably mounted on bars 18. On said shaft is a plurality of levers and a container functioning as follows.

In Fig. 3 is shown the vending container 19 pivotally mounted in its normally disengaged position, and having a spout F adapted to discharge in the funnel 20 which leads to a sanitary cup 21. When the coin is placed in the coin receptacle 22 and the mechanism 11 is pushed inward the pin on the spring 13 as heretofore described will engage with the lever 16 and by the rotation of the shaft 17 the said container will be positioned as shown by dotted lines G and at this instant a striker 23 having flanges 24 on its opposite edges engages

with the end of lever 10 which is interposed between said flanges for opening and closing valve 8 as heretofore described. When the container is in an upright position as shown at dotted lines G the said striker and lever will move rearward as shown by dotted lines H opening the valve for dispensing the carbonated water into the container through the spout 9 and at the same time the syrup is also dispensed through a spout 25 by the simultaneous action of the crank 26 actuating a rod 27 which is pivotally connected at the opposite end to a dipper 28, said dipper being pivotally mounted at 29 to the side of a syrup container 30 having a spout 25 as heretofore described. The said dipper is adapted to engage in a receptacle 31 which contains the syrup to a depth as indicated by line J, and when the dipper is submerged as shown in Fig. 3 it will contain a sufficient amount of syrup to sweeten one cup of the drink and when actuated by the rod 27 to the position as shown by dotted line K the contents will discharge rearward into said receptacle 30.

It will be noted that the vending container 19 has rearwardly extending arms 32, between which is pivotally mounted a counterbalance 33 which is adapted to oscillate on rocking of the container as shown by dotted lines L, and the movement thereof is checked by strikers 34 which intensifies the movement of the container so that the valve 8 and dipper 28 will be suddenly brought into action thoroughly mixing and dispensing the drink purchased by the coin. It will also be understood that when the coin member 11 is put in action the connecting rod 35 being connected to an arm 36 will rotate a vending mechanism releasing a sanitary cup which will drop into a U shaped opening which is formed by flanges 37 adapted to hold the cup while being filled and allowing it to slide outward when door 38 is opened. The used cup is thrown into the receptor 7. 40 is an inclosure for the suspended cup having an inclined bottom 42, so that any fluid dripping on the bottom will drain out through an opening 43 into the receptor.

The syrup storage container 4 is an air tight removable compartment resting on its shoulders 44, which are centrally positioned in the container 31. This said container is positioned within a housing 44 having a lid thereon 44''. The first said container 9 has a tube 45, extending downward and engaging on the bottom of the syrup container 31, opening the ball valve 46 as shown in Figs. 2 and 3, the object of which is to allow the syrup to flow freely into the receptacle 31 until the depth seals the bottom of the tube, preventing further discharge of the fluid until it has been consumed to the extent, that air will pass through the tube to the container 4, supplying air to the vacuum for further discharge.

To fill said container 4, it is withdrawn and inverted, the syrup being poured through the said tube, and the valve stem having a flaring tip 47 will obviate the danger of the valve and stem dropping into the container.

To put the machine in operation I connect the carbonated water tank with the circulating coil. Then I place the syrup storage container 4, on its bearing within said coil and fill the area within the insulated chamber with ice, by which the fluid is kept cold. I have provided a drain pipe 48, which is connected to the bottom of the ice chamber, and extending downward discharges into the receptacle 7, by which means the water is disposed of, as the ice melts. Such modifications may be employed as lie within the scope of the appended claims. Having thus described my invention what I claim as new and desire to secure by Letters Patent, is—

1. In a vending machine, a pivoted tipping mixing chamber and means controlled by the tipping of the chamber in one direction to supply a plurality of fluids thereto, the mixture being dispensed on tipping in the other direction and the supply cut off.

2. In a vending machine, a pivoted tipping chamber; stops on the chamber and an oscillating counterweight pivoted therebetween to emphasize the movement of the chamber as the counterweight is carried past the pivot of the mixing chamber as the latter is tipped; and means controlled by the tipping of the chamber in one direction to supply a plurality of fluids thereto, a mixture of said fluids being dispensed on tipping of the chamber in the other direction and the fluid supply cut off.

3. In a cooler for a vending machine, a central casing, a syrup container within the same, a water-supply coil around the casing, and means for dispensing from the coil and syrup container substantially at the same time.

4. In a vending machine for a plurality of liquids, a pivoted tipping chamber, said chamber including a spout at one end and rearwardly extending arms at the opposite end, a pivoted counterbalance thereon; and lever and rod means, the tipping of the chamber in one direction actuating said lever and rod means to connect the fluid supplies to said chamber and the tipping of the chamber in the other direction operating on said lever and rod means to cut off the fluid supplies.

5. In a vending machine, a cooler and dispensing mechanism in combination; said cooler including a central casing, a syrup container within the same, a water supply

coil around the casing, a valve for said coil element and a dipper mechanism pivotally arranged within the casing and adjacent an outlet receptacle; said dispensing mechanism including a pivoted tipping chamber provided with a spout at one end and rearwardly extending arms at the opposite end, a pivoted counterbalance therebetween; a lever connecting between the tipping chamber and the valve, a rod connecting between the tipping chamber and the dipper mechanism; the tipping of the chamber in one direction actuating the lever to open the valve and release a water supply to said chamber and simultaneously actuating the rod to operate the dipper mechanism and deliver a measured syrup supply also to said chamber; the combined weight of said fluids as then received within the tipping chamber operating to overcome counterbalance influence and cause said tipping chamber to tip in the opposite direction and thoroughly mix the combined fluids during passage outwardly through said spout funnel.

STEWART F. SPROUL.