C. N. OGDEN.

VENDING MACHINE.

APPLICATION FILED AUG. 13, 1914.

1,139,711.

Patented May 18, 1915.

3 SHEETS—SHEET 1.

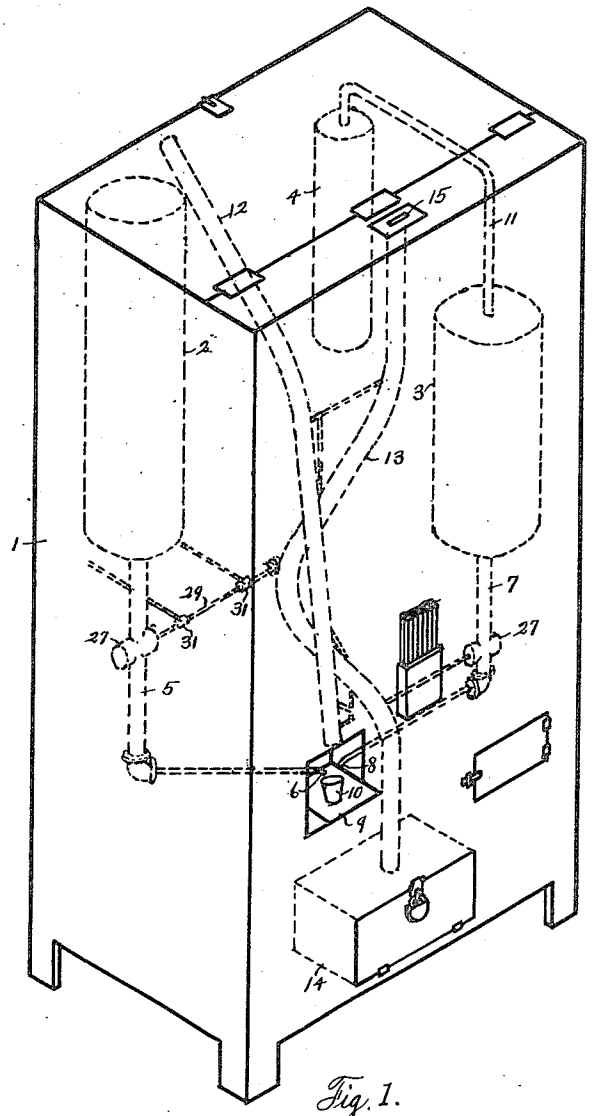

Fig. 1.

WITNESSES:

C. Baylor Hurt

E. Connolly.

INVENTOR

Carlton N. Ogden

BY

Hardway & Cathey

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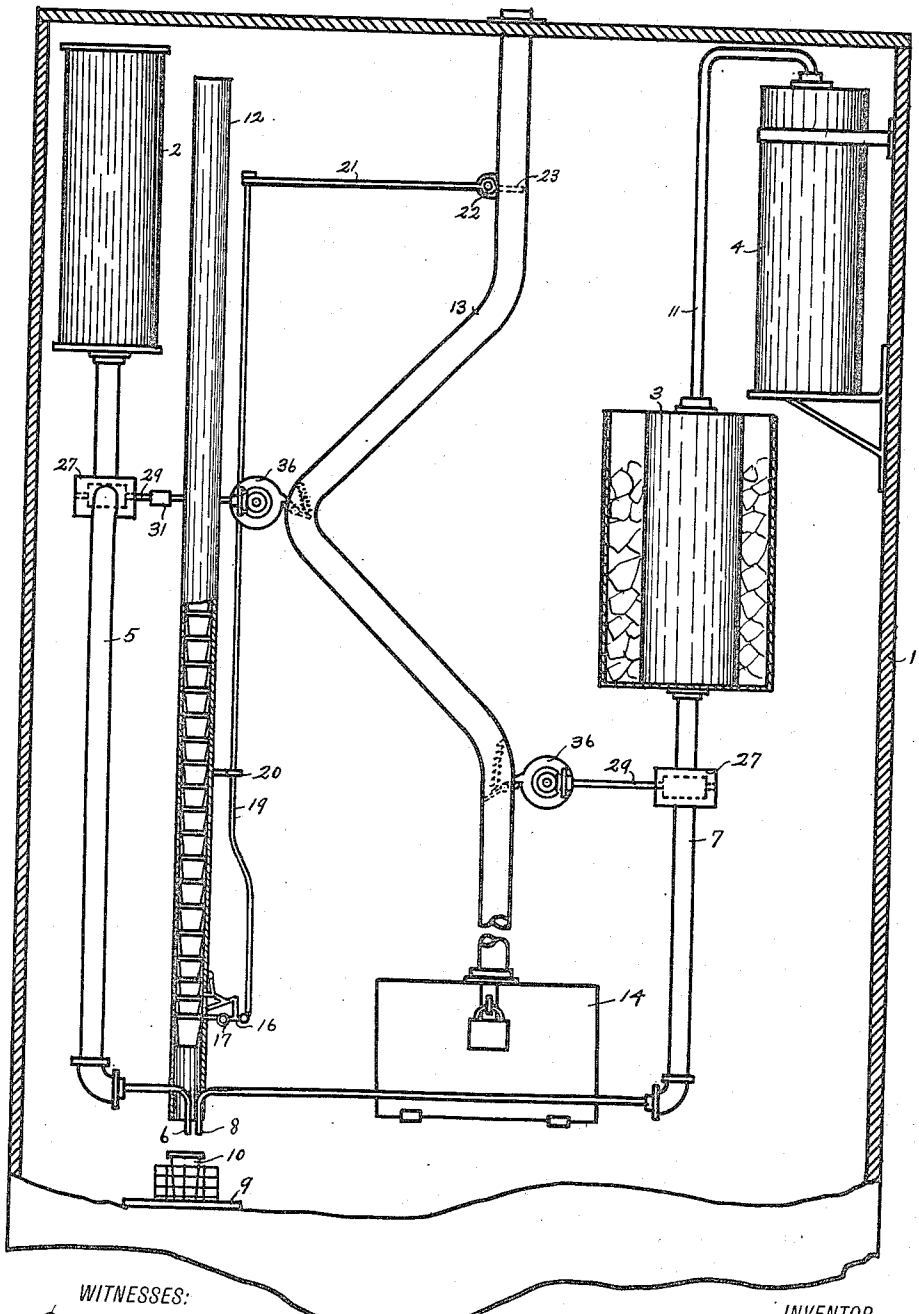

WITNESSES:

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Fig. 2.

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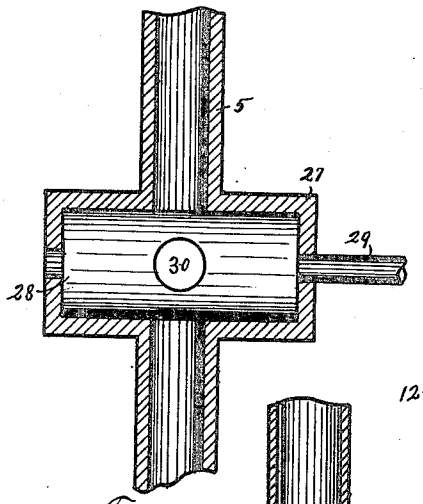

Fig. 5.

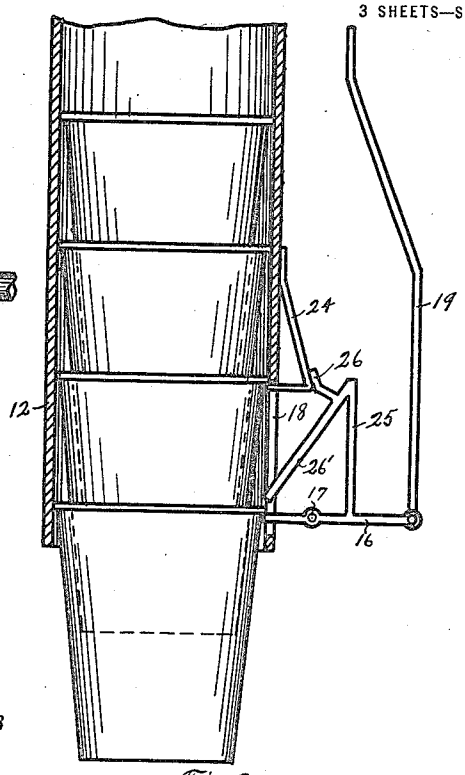

Fig. 3.

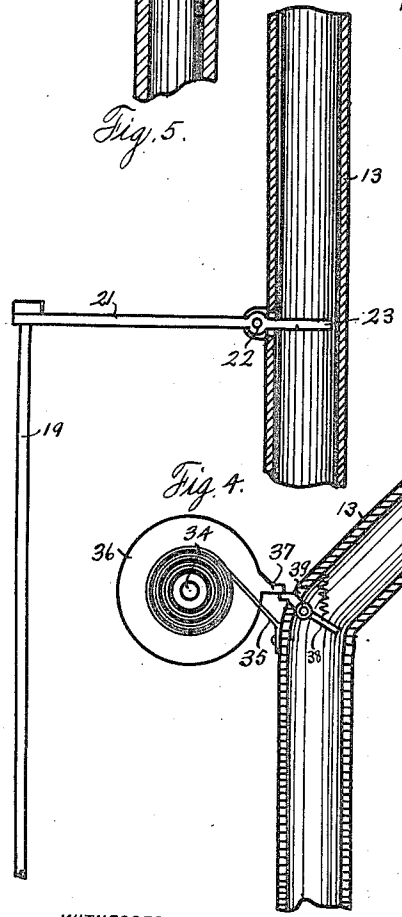

Fig. 4.

Fig. 7.

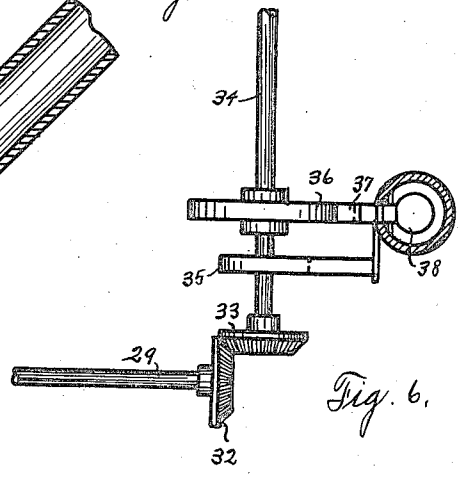

Fig. 6.

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UNITED STATES PATENT OFFICE.

CARLTON N. OGDEN, OF HOUSTON, TEXAS.

VENDING-MACHINE.

1,139,711. Specification of Letters Patent. Patented May 18, 1915.

Application filed August 13, 1914. Serial No. 856,587.

To all whom it may concern:

Be it known that I, CARLTON N. OGDEN, a citizen of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to new and useful improvements in vending machines and has particular relation to such devices as are adapted to be used for vending drinks, such as carbonated water or other soft drinks.

The object of invention is to provide a device of the character described, wherein is contained suitable drinking cups, and also the ingredients from which the desired drink is formed, and embodies a mechanism whereby a cup is delivered and filled with the desired fluid, said mechanism being released to operate by means of a coin which is deposited in a slot provided for the purpose.

With the above and other objects in view, the invention has particular relation to certain novel features of construction, operation and arrangement of parts, an example of which is given in this specification and illustrated in the accompanying drawings wherein:—

Figure 1 is an isometric view of the complete device. Fig. 2, is a fragmentary side elevation thereof, showing the casing in section. Fig. 3, shows a fragmentary sectional view of the cup container showing also the mechanism for releasing the cups therefrom. Fig. 4 shows a fragmentary view of the coin chute, showing the means for tripping the cup-releasing mechanism. Fig. 5 shows a fragmentary sectional view of the means for releasing the fluid from the containers thereof. Fig. 6 shows a plan view of the mechanism for actuating the fluid releasing means, and Fig. 7 shows a fragmentary sectional view of the coin chute, showing in connection therewith the trigger by means of which said actuating mechanism is released.

Referring now more particularly to the drawings wherein like numerals of reference designate similar parts in each of the figures, the numeral 1 refers to a suitable cabinet which is constructed of a convenient size and contains the operative mechanism of the device. In this cabinet is located a syrup tank 2, a water tank 3 and a gas tank 4. From the syrup tank leads a suitable outlet pipe 5, which terminates in the discharge nozzle 6, and from the water tank 3 leads a suitable outlet pipe 7 which terminates in the discharge nozzle 8. The discharge nozzles 6 and 8 terminate over the platform 9 and discharge into the cup 10 located thereon.

The gas tank 4 communicates with the water tank 3 through the pipe 11, so that when the water is released from the tank 3 it will be discharged in the form of carbonated water through the influence of the gas thereon. A tube like cup container 12 is provided which is filled with cups, formed of paraffined paper, or some other similar water-proof material. These cups, while in the container, fit one within the other, in the well-known manner, and as shown in Fig. 2, and each cup has an over-hanging rim or flange around its upper edge, said flange fitting snugly within the container, and the cups are discharged one at a time onto the platform 9, as will be hereinafter explained.

A coin chute 13 is provided which leads from the top of the cabinet down through the same and discharges into the receptacle 14 at the bottom thereof. The coin is admitted to this chute through the slot 15 at the top of the cabinet.

The numeral 16 refers to a trigger which is pivoted at the point 17 and whose inner end projects through the slot 18 of the cup container and normally engages under the rim of the lower cup. The lower end of the rod 19 is pivoted to the outer end of the trigger 16 and this rod passes up through the eye 20, in which it is freely slidable and its upper end has a hinge connection with the outer end of the lever 21. This last mentioned lever is pivoted at the point 22 adjacent the coin chute, 13, and its inner end 23, projects through an alined slot in said chute. When a coin is deposited in the slot 15, it passes down the chute 13, and onto the projecting end 23 of the lever 21, and, as said lever is nicely balanced, it is tripped by said coin and the outer end thereof, and the rod 19, are elevated. This action operates to elevate the outer end and to lower the inner end of the trigger 16, and to release the lower cup which drops onto the platform 9. A latch 24, formed of flexible material, is secured to the cup receptacle 12 and its lower end is turned inwardly through the slot 18, and normally said inner end is flush with the inner side of the cup recep-

tacle so as not to engage with the cup flange. The outer end of the trigger 16, however, has an upstanding arm 25, carrying the laterally projecting fingers 26, 26' the former of which normally rests against the latch 24 and the free end of the latter of which depends over the rim of the lower cup and as the outer end of the trigger 16 is elevated the free end of the finger 26' engages against the cup rim and forces the same downwardly and insures the cup's discharge from the receptacle.

When the rod 19 is elevated, and the lower cup released, the pressure of the finger 26 against the latch 24 forces the inner end of said latch into engagement under the rim of the last preceding cup and prevents the depositing of more than one cup at a time on the platform 9. When the coin has passed the projecting end 23 of the lever 21, said lever assumes its original position and the rod 19 is lowered, the inner end of the trigger 16 again assumes a position in the path of the cup rim. The pressure of the finger 26 on the latch 24 is at the same time, and by the same means, released, and the flexibility of the latch 24 disengages its free end from under the cup rim thus permitting the cup to descend in the receptacle 12 until arrested by the projecting end of the trigger 16.

At a suitable point underneath the syrup tank 2, the outlet pipe 5 is enlarged and formed into a cylindrical casing 27, wherein rotates the close-fitting cylindrical valve 28 which is fixed on the shaft 29, rotatable in suitable bearings in the casing ends.

The cylindrical valve 28 has a transverse orifice 30 extending entirely therethrough and as the cylindrical valve 28 rotates, this orifice is intermittently brought into alinement with and forms a continuation of the fluid passage way through the outlet pipe 5; at other times this outlet pipe is completely blocked by the cylindrical valve 28.

The shaft 29 is supported by and is rotatable in suitable bearings 31, 31, carried by the cabinet wall and the inner end of shaft 29 has the bevel gear wheel 32 fixed thereon which meshes with a similar bevel gear wheel 33, which is fixed on one end of the shaft 34. This last mentioned shaft is rotated by means of a coil spring 35, one end of which is attached to the said shaft, and the other end of which is attached to the coin chute 13. Fixed on the shaft 34, adjacent to spring 35 is the disk 36 having a catch 37 projecting from its periphery. Pivoted within the coin chute is the trigger 38, one end of which projects through the slot 39 in said chute and engages under the catch 37 and locks said disk, and the shaft whereon it is fixed, against rotation. After the coin has passed beyond the inner end of the lever 21, it drops through the coin chute and strikes against the inner end of the trigger 38 and disengages the outer end of said trigger from the catch 37 and releases the shaft 34 to the influence of the spring 35 which causes one rotation thereof. The rotation of the shaft 34 in turn causes the shaft 29 and the valve 28 to rotate through the mechanism hereinbefore described, and when the orifice 30 is brought into alinement with the passage way through the pipe 5, one charge of syrup is discharged from the tank 2 into the cup 10. The outer end of the trigger 38 being heavier than the inner end drops back into its original position in the path of the catch 37 and permits only one rotation of the disk 36. The flow of water from the tank 3 is controlled in identically the same manner, and by means of similar mechanism, as that of the syrup from the tank 2, and the parts of said mechanism are indicated by the same numerals as similar parts of the mechanism controlling the flow of syrup in the syrup tank. It is consequently not thought necessary to describe the water controlling mechanism in detail. It is sufficient to say that the coin in passing down through the chute 13 trips the valve controlling mechanism which operates the valve controlling the flow of water from the water tank 3 and permits a charge of water to be delivered into the cup 10 and mixed with the syrup therein.

I have shown only one form of this device, but it is obvious that various modifications may be made therein without departing from the principle of the invention and I hereby reserve the right to make such changes herein as I may desire so long as I do not depart from the scope of the appended claims.

What I claim is:—

1. A vending machine embodying a casing, a coin chute supported therein, a cup container therein provided to contain cups; a platform underneath the container; a mechanism for retaining said cups in said container, a means actuated by the coin passing through said chute for releasing said retaining mechanism, and simultaneously forcing the lower cup onto the platform.

2. A vending machine embodying a casing; a coin chute supported therein; a cup container in the casing provided to contain cups; a platform underneath the container; a mechanism for retaining said cups in said container; a means actuated by the coin passing through said chute for releasing said retaining mechanism; and simultaneously forcing said cups singly from the container onto said platform.

3. A vending machine embodying a casing, a coin chute supported therein; a tubular cup container supported vertically in the casing and provided to contain cups, a platform supported by the casing and arranged

to receive the cups from said container; a mechanism for retaining said cups in said container; a means actuated by a coin passing through said chute for releasing said retaining mechanism and simultaneously therewith forcing a single cup from the container on to the platform.

4. A vending machine embodying a casing; a coin chute supported therein; a tubular cup container fixed in the casing and provided to contain cups which are discharged from the lower end thereof, a receiving platform underneath the container; a trigger engaging with the lower cup; a mechanism actuated by the coin passing through said chute for releasing said trigger and simultaneously forcing the lower cup on to the platform; a latch actuated by said mechanism and securing the next succeeding cup in the container while the lower cup is being discharged therefrom.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARLTON N. OGDEN.

Witnesses:
J. W. YEAGLEY,
E. CONNOLLY.