

D. J. BUTTERFIELD.
AUTOMATIC MIXER FOR BEVERAGE VENDING MACHINES.
APPLICATION FILED MAY 10, 1922.

1,436,009.

Patented Nov. 21, 1922.

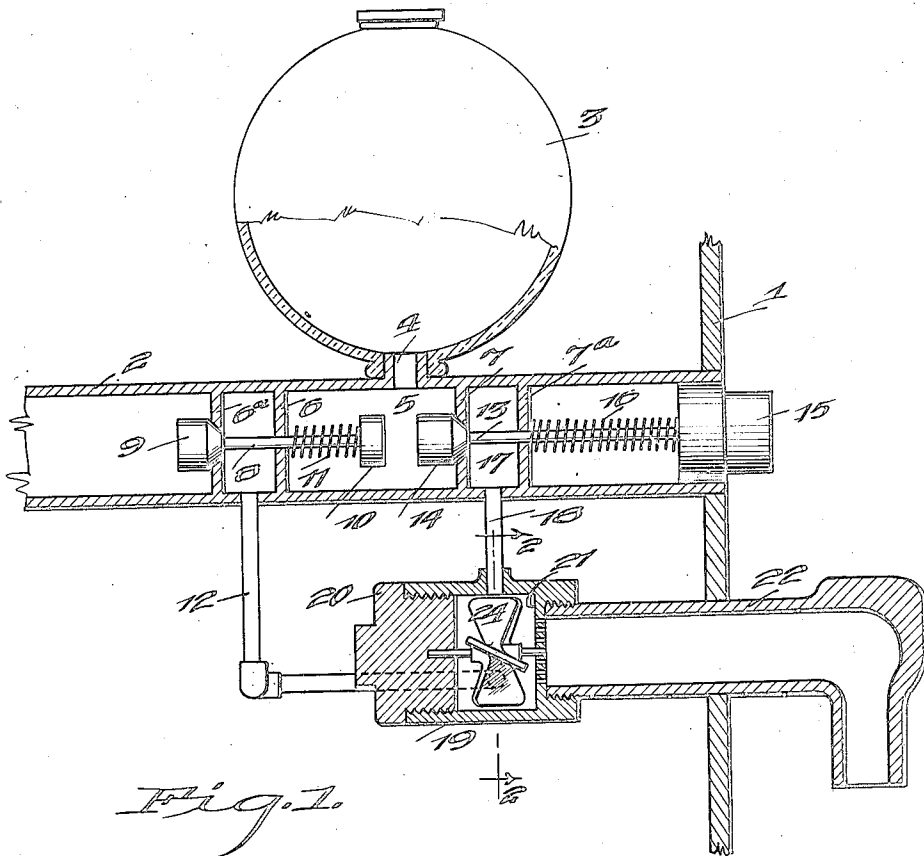


Fig. 1.

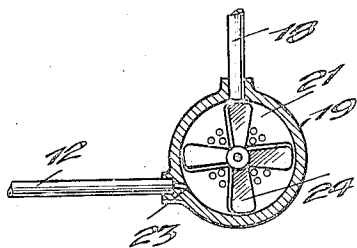


Fig. 2.

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UNITED STATES PATENT OFFICE.

DANIEL J. BUTTERFIELD, OF LOS ANGELES, CALIFORNIA.

AUTOMATIC MIXER FOR BEVERAGE-VENDING MACHINES.

Application filed May 10, 1922. Serial No. 559,942.

To all whom it may concern:

Be it known that I, DANIEL J. BUTTERFIELD, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Automatic Mixers for Beverage-Vending Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an automatic mixer for beverage vending machines, and the object of the invention is the provision of simple and efficient means for facilitating the mixing of, preferably, carbonated water with a syrup, prior to discharging the mixture in a suitable receptacle.

This invention relates to certain improvements, hereinafter described, pertaining to the apparatus disclosed in my prior United States Patent, No. 1,407,838, issued February 28th, 1922.

With the foregoing and other objects in view, my invention comprises certain novel combinations, constructions and arrangements of parts as will be hereinafter described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claim.

In the drawings:

Figure 1 is a fragmentary view of a beverage vending machine, showing my mixing device or apparatus in vertical section.

Figure 2 is a sectional view taken on line 2—2, Fig. 1, and looking in the direction of the arrows.

Referring to the drawings by numerals, 1 designates the frame or casing of a vending machine upon which is mounted a casing 2. Mounted on casing 2 is a glass, syrup-measuring container 3, which container communicates, through passage 4, with the interior of casing 2. The passage 4 opens into compartment 5 formed between partitions 6 and 7. Additional partitions 6^a and 7^a are formed in the casing. A rod 8 is slidably mounted on partition 6, and on its other end is a valve head 9, while its inner end is provided with a button 10. Mounted upon rod 8, between partition 6 and button 10, is spiral spring 11. This spring 11 serves to hold valve head in a seated position upon partition 6^a, thereby normally preventing carbonated water from passing into the auxiliary pipe 12.

A front rod 13 is slidably mounted upon partition 7^a and is provided, at its inner end, with a valve head 14 that is adapted to abut against button 10 when the operator pushes upon the push button 15 attached to the outer end of the rod 13. A coil spring 16 is mounted upon rod 13 between push button 15 and partition 7. A compartment 17 is formed between partitions 7 and 7^a, and a primary pipe 18 communicates, at its inner end, with the compartment 17.

A mixing casing 19 is positioned close to casing 2. This casing 19 is closed at one end by a threaded plug 20 and has in its other end an apertured partition 21. Threaded into casing 19, contiguous to partition 21, is an outlet nozzle 22. The nozzle 22 is adapted to discharge into a suitable receptacle when the receptacle is placed under the outer end of the nozzle (not shown). The auxiliary pipe 12 is connected to the casing 19 and opens upon an inclined passage 23 that is adapted to permit water to strike at an angle against the rotary mixer 24, mounted within casing 19. The primary pipe 18 permits syrup to pass therethrough and be discharged against the propeller-like blades of the rotary mixer 24, whereupon water and syrup will be efficiently mixed in the casing and thence through pipe 18 into the mixing casing, and at the same time, by reason of the valve head 14 striking against the button 10, carbonated water will pass from casing 2 into the auxiliary pipe 12 and thence into the mixing casing, where the syrup and water will be mixed and thence passed through the "sieve" or apertured partition 21 into the nozzle, in a thoroughly mixed condition.

While I have described the preferred embodiment of my invention, and have illustrated the same in the accompanying drawings, certain minor changes or alterations may appear to one skilled in the art to which this invention relates, and I, therefore, reserve the right to make such alterations or changes as shall fairly fall within the scope of the appended claim.

What I claim is:

In a device of the class described, the combination with a valve casing provided with a plurality of valve controlled passages, of a mixing casing, pipes connected to said mixing casing and in communication with said valve controlled passages of the valve

casing, said mixing casing provided at one end with a threaded plug, said mixing casing provided near its other end with a "sieve" or apertured partition, a rotary mixer journaled upon said plug and apertured partition within said mixing casing, and an outlet or discharge nozzle threaded at its inner end into one end of the mixing casing, substantially as shown and described.

In testimony whereof I hereunto affix my signature.

10

DANIEL J. BUTTERFIELD.