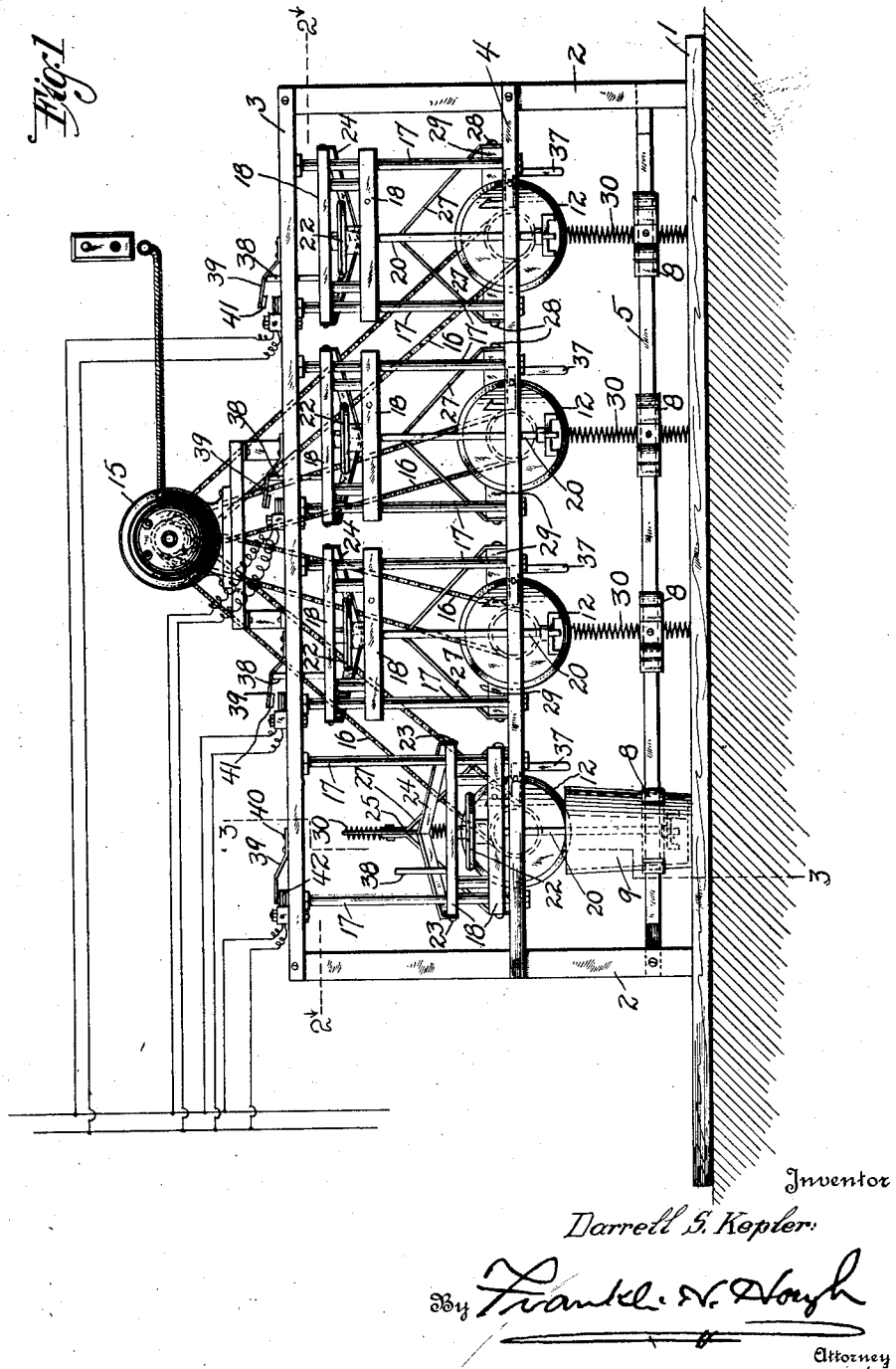


D. S. KEPLER.
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APPLICATION FILED JAN. 10, 1920.

1,343,829.

Patented June 15, 1920.
3 SHEETS—SHEET 1.



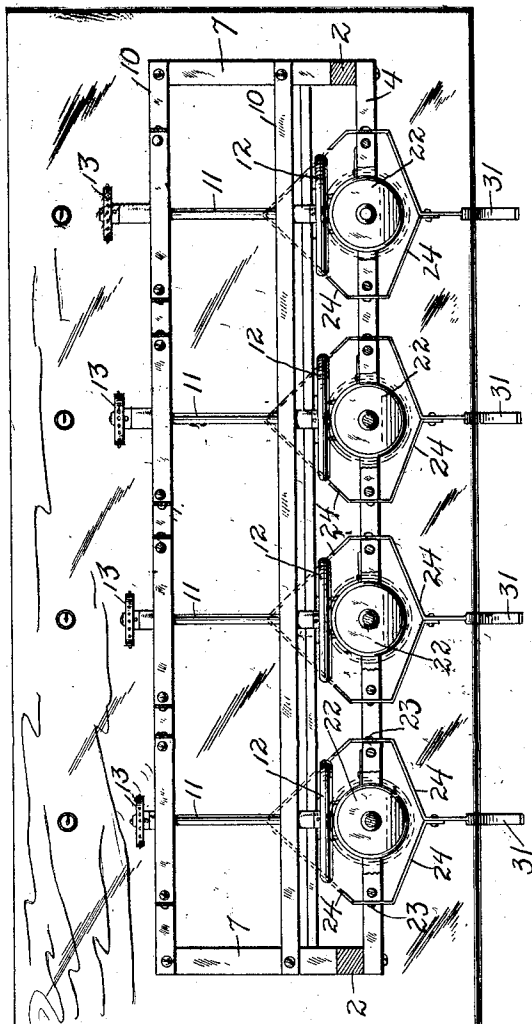
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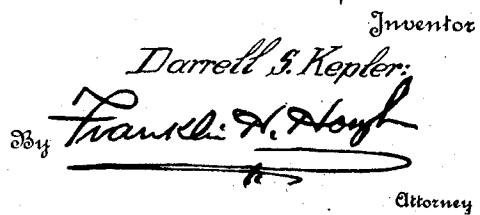
Fig. 2.



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3 SHEETS—SHEET 3.



UNITED STATES PATENT OFFICE.

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MIXING APPARATUS FOR SODA-FOUNTAINS.

1,343,829.

Specification of Letters Patent. Patented June 15, 1920.

Application filed January 10, 1920. Serial No. 350,569.

To all whom it may concern:

Be it known that I, DARRELL S. KEPLER, a citizen of the United States, residing at Crawfordsville, in the county of Montgomery and State of Indiana, have invented certain new and useful Improvements in Mixing Apparatus for Soda-Fountains; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in mixing devices for soda water fountains, and the basic object is to provide a novel construction whereby a plurality of stirrers or mixers may be operated successively, selectively, or simultaneously.

The invention in its preferred form is graphically illustrated in the accompanying drawings forming a part of this application.

Briefly described:—

Figure 1 is a side elevation of the apparatus, certain parts being shown in section.

Fig. 2 is a horizontal sectional view on the line 2—2, Fig. 1.

Fig. 3 is a transverse sectional view on the line 3—3, Fig. 1, and

Figs. 4, 5, 6 and 7 are fragmentary detail views of parts of the apparatus.

Referring now in detail to the drawings, 1 designates a base supporting a suitable frame, herein shown as comprising front uprights 2, 2, connected at their top by a cross-bar 3, by an intermediate cross-bar 4, and toward their lower ends by a bottom cross-bar 5. In the rear of and of lesser length than the upright 2 is an upright 6 having at its top a forward-extending horizontal extension 7 secured to the upright 2.

Connecting the extensions 7, 7, are two bars 10, 10.

Secured to the lower cross-bar 5 is a series of equi-distantly spaced clips 8 of spring metal constituting holders for drinking glasses or tumblers 9.

Rotatably journaled in the bars 10, 10, are revolvable shafts 11, 11, any suitable number of which may be employed, in this instance four being shown.

Carried at the forward end of each shaft 11 is a friction disk or wheel 12, and at the

opposite end a sprocket wheel 13, from which and over the multiple pulley 14' on the shaft 14 of an electric motor 15, suitably supported upon the top of the frame, passes a sprocket chain 16.

Connecting the frame bars 3, 4, are pairs of vertical guide rods 17, 17. On each pair of guide rods slides a carriage of any suitable form, herein shown as consisting of horizontal bars 18, 18, through which the guide rods 17, 17 loosely pass, said bars 18, 18, being spaced apart by posts 19, 19.

Supported in each pair of carriage bars 18, 18, and longitudinally, slidably, and rotatably supported in the frame bar 4 is a vertical stirrer shaft 20, carrying at its lower end paddles 21. Rigidly carried by the upper end of each shaft 20 is a friction pinion 22, adapted, when the carriage is moved from its uppermost to its lowermost position, to contact with and be driven by the friction disk 12.

Pivoted at its sides to each top cross-bar 18, as shown at 23, 23, is a yoke 24 carrying at its rear a rearwardly projecting arm 25, fulcrumed at 26 on the upper end of a rockable or tiltable bracket comprising the two arms 27, 27, pivoted at their ends as shown at 28, 28, to the terminals of a bar 29, supported upon the upper surface of the frame bar 4.

A retractile spring 30, connected at its respective ends to the rear end of the arm 25 and to the base 1, normally maintains the arm 25 tilted with the carriage 18, 18, and the stirrer shaft 20 in elevated position.

Each yoke 24 is provided at its front with a forward projecting finger-piece 31, which may be grasped by the operator in tilting the yoke downward for the purpose of lowering the carriage.

Supported upon the frame bar 4 is a series of vertically disposed latches 32, one for each carriage 18, 18. Each latch is pivotally supported for tiltable movement, as shown at 33, and has at its upper end a hook 34 having a cam edge 35 in the path of movement of a pin 36, carried by the lower carriage cross-bar 18 (see more particularly Fig. 7).

As the carriage descends, the pin 36 strikes the cam edge 35 and tilts the latch to the right (see Fig. 7), and as soon as the pin rides off the lower edge of said cam edge, the latch tilts by gravity in the reverse direction, so that the pin rests under the beak of

said latch, as shown in Fig. 7, thereby locking the carriage against upward movement. Each latch is provided with a pendent extension 37, constituting a finger-piece which may be grasped by the operator in releasing the latch from engagement with the pin 36, when it is desired to return the carriage to normal or elevated position.

Supported by each upper carriage cross-bar 18 is a vertical rod 38 adapted, when the carriage is in elevated position to project through a suitable opening in the frame cross-bar 3 and contact with and elevate a switch arm 39 of spring material secured, as at 40, to the upper surface of the frame cross-bar 3. The wedge-shaped end 41 of the switch bar 39, when the latter is in lowered position, is adapted to bridge the space between electric terminals 42, 42, of an electric circuit, including the motor 15.

As stated, in the normally elevated position of the carriages 18, 18, which slide on the guide rods 17, 17 (see Fig. 1), the rods 38, by their engagement with the spring switch arms 39, lift the same so as to break the circuit, but as soon as a carriage is lowered, the spring switch arm moves toward the frame bar 3 to engage the terminals 42, 42, and thus close the circuit and start the motor 15.

In operation, assuming all of said carriages 18 to be in elevated position, and it being desired to mix a drink in one of the tumblers 9, the operator grasps the finger-piece 31 and tilts the yoke 24 downward, which lowers the carriage 18, 18 on the guide rods 17, 17, and withdraws the rod 38 from engagement with its spring switch arm 39, the latter thereupon moving toward the frame bar 3, to cause its wedge end 41 to contact with the electric terminals 42, thereby closing the electric circuit to the motor 15. The friction wheel or disk 12 will now be rotated by reason of its belt connection with the multiple pulley of the motor shaft 14. As the carriage is lowered the friction pinion 22 is brought into contact with the rotating friction disk 12 and is consequently driven thereby, causing the stirrer shaft 20 to revolve.

I claim:

1. A mixing apparatus for soda fountains, etc., comprising a series of vertically movable carriages, a stirrer shaft revolubly supported by each carriage, a yoke pivotally secured to each carriage, a rearward projecting arm carried by each yoke, a tiltable support to which said arm is fulcrumed, a forward projecting finger piece carried by each yoke, means for normally holding each of said yokes tilted downward and rearward with the carriage and stirrer shaft in elevated position, and means automatically operable upon the lowering of any one of said carriages to cause rotation of the stirrer shaft carried thereby.

2. A mixing apparatus for soda fountains, etc., comprising a series of vertically movable carriages, a stirrer shaft revolubly supported by each carriage, a yoke pivotally secured to each carriage, a rearward projecting arm carried by each yoke, a tiltable support to which said arm is fulcrumed, a forward projecting finger piece carried by each yoke, means for normally holding each of said yokes tilted downward and rearward with the carriage and stirrer shaft in elevated position, and electrically-controlled means automatically operable upon the lowering of any one of said carriages to cause rotation of the stirrer shaft carried thereby.

3. A mixing apparatus for soda fountains, etc., comprising a series of vertically movable carriages, a stirrer shaft revolubly supported by each carriage, a yoke pivotally secured to each carriage, a rearward projecting arm carried by each yoke, a tiltable support to which said arm is fulcrumed, a forward projecting finger-piece carried by each yoke, tension elements secured to the free ends of said rearward projecting arms for normally holding said yokes tilted downward and rearward with the carriages in elevated position, and means automatically operable upon the lowering of any one of said carriages to cause rotation of the stirrer shaft carried thereby.

In testimony whereof I hereunto affix my signature.

DARRELL S. KEPLER.