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DRINK MIXER

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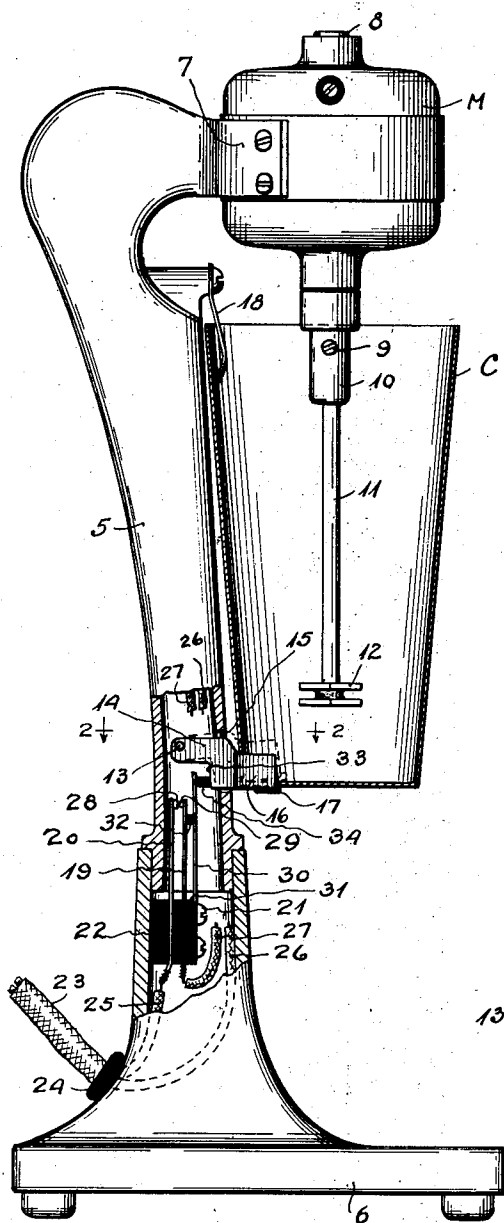


Fig. 1.

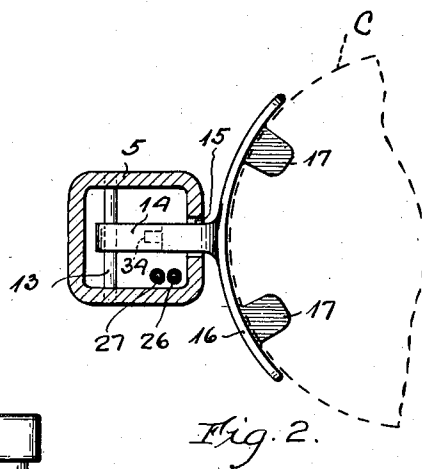


Fig. 2.

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UNITED STATES PATENT OFFICE.

STANLEY J. JEMBRZYCKI, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE GILCHRIST COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

DRINK MIXER.

Application filed December 7, 1922. Serial No. 605,337.

To all whom it may concern:

Be it known that I, STANLEY J. JEMBRZYCKI, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Drink Mixers, of which the following is a specification.

My invention relates to drink mixers of the class in which the electrical circuit for the driving motor is automatically controlled when the drink container is placed in position to receive the mixing tool driven by the motor. The important object of my invention is to provide a compact cantilever supporting structure for the container which structure is controlled by the entire weight of the container and contents to powerfully and efficiently operate the controlling mechanism for the motor circuit. Another object of the invention is to so position the supporting structure that the container can be readily placed thereon to receive the mixing tool and the motor spindle on which it is mounted, without moving the motor or spindle.

The various features of my invention are incorporated in the structure shown on the accompanying drawing, in which

Fig. 1 is a side elevational view of the drink mixer with parts in section, and

Fig. 2 is an enlarged sectional view on line 2-2, Fig. 1.

The supporting structure of my improved mixer comprises a hollow post or standard 5 rising from a hollow base 6. At its upper end the post deflects laterally to provide a yoke 7 for receiving the electric motor M. The armature shaft 8 of the motor is vertical and is secured by screw 9 to a socket 10 from which extends downwardly the spindle 11 which terminates at its lower end in a mixing button or head 12. A short distance below the button the post 5 supports the transverse pin 13 on which is pivoted at its inner end the lever 14 forming part of the supporting structure for the container C. The lever extends through the opening 15 in the front wall of the post and at the outside of the post connects to the middle of the arcuate vertical wall 16 from whose lower edge supporting shelves 17 extends horizontally forwardly, these shelves forming seats for the container and the arcuate wall forming a back against which the container engages when it is seat-

ed on the shelves, the back holding the container in axial alignment with the mixing spindle.

At the upper end of the post 5 just below the motor I secure a clip 18 between whose lower end and the front of the post the upper edge of the container C is slipped before its base is applied to the shelves 17 and the back 16. The container is applied to receive the mixing spindle and is then first slipped under the clip 18 and then seated on the cantilever supporting structure, and the container will then be suspended in front of the post in axial alignment with the mixing spindle as shown. Near the upper end of the base 6 front and rear circuit controlling leaf springs 19 and 20 are secured at their lower ends to the base by means of screws 21, insulation material 22 being applied between the springs and the base to insulate the springs from each other. The cord 23 by means of which the device may be connected with an electric supply circuit extends into the base through the insulating bushing 24, one conductor 25 connecting with spring 20 and the other conductor 26 extending upwardly through the hollow post to one terminal of the motor, the other terminal of the motor being connected by the conductor 27 with the spring 19. At its upper end the spring 20 is provided with a contact 28 while the spring 19 is provided with a contact 29. When these contacts are in engagement the motor circuit is closed and the device will be in operation. The closure of the springs is controlled by the cantilever structure which supports the container. In front of the spring 19 the spring 30 is supported at its lower end by the same screws 21 which support the other springs, and insulation 31 is interposed to insulate the spring 30. The spring 30 has the post 32 of insulating material extending therefrom and abutting against the spring 19. The lever 14 has the vertical shoulder 33 from which the post 34 of insulating material extends rearwardly to engage against the upper end of the spring 30. When the container is off the supporting cantilever structure the spring 30 will deflect forwardly to rotate the lever structure and hold it up in its normal position against the top of opening 15, as indicated by the dotted lines in Fig. 1. When the circuit controlling spring 19 is released from the pressure of the spring 30

it moves forwardly and disengages its contact 29 from the contact 28 on the spring 20 and the motor circuit will be open. When the container with its contents is placed on the supporting lever structure the entire weight of the container and contents will be free to act on the lever structure and swing it downwardly to cause the post 34 to swing against the spring 30 rearwardly so that the post 32 will in turn exert pressure against the spring 19 and force it rearwardly to bring the contacts 28 and 29 securely together to close the motor circuit, whereupon the motor revolves and the container contents are thoroughly mixed. With the supporting lever structure pivoted at its inner end and the container supported on its outer end and with the abutment post 34 near the pivot end the lever structure can exert powerful pressure against the contact spring and insure at all times a perfect contact engagement of the springs which control the motor circuit, and the entire weight of the container and contents act on the lever structure. After a mixing operation the container is pulled forwardly at its lower end until it is released from the shelves 17 and it is then moved downwardly out of the clip 18 and until its upper edge clears the mixing button 12, whereupon it is removed from the device. The base may be so shaped and the mixing button may be of such distance above it that the container can be readily applied or withdrawn without requiring any dangerous tilting, and the contents will therefore not be spilled. The entire structure is light, compact and of neat appearance, and is well balanced.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having described my invention, I claim as follows:

1. In a drink mixer of the class described, the combination of a supporting standard, a motor supported at the upper end of said standard, a spindle connected with the motor armature and extending vertically downwardly in front of said standard, a mixing button at the end of said spindle, a lever structure pivoted at its inner end inside of said standard below said button and terminating in front of said standard in a shelf for receiving a container, a clip at the upper end of said standard for receiving the entrance edge of a container, an abutment on said lever structure, and circuit controlling springs inside of said standard in the path of said abutment to be controlled to close the motor circuit when a container is placed on said shelf.

2. In a drink mixer of the class described, the combination of a hollow supporting

standard, an electric motor supported at the upper end of said standard, a spindle connected with the motor armature and extending downwardly in front of the standard and terminating in a mixing button, a clip for holding the upper end of a container, a supporting shelf structure for receiving the base of a container, said standard having an opening, said structure extending into said opening and pivoted at its inner end in said standard, a spring within said standard engaging with said supporting structure and tending to swing it upwardly to normal position, a circuit for said motor, and circuit controlling contacts within said standard in the path of said spring, said contacts being normally disengaged to open the motor circuit, the weight of a container on said supporting structure causing actuation of said spring to engage said contacts and to close the motor circuit.

3. In a drink mixer of the class described, the combination of a hollow supporting standard, a motor supported at the upper end of said standard, a spindle connecting with the motor armature and extending vertically downwardly in front of said standard and terminating in a mixing button, an extension on said standard below said motor for receiving the entrance edge of a container whose contents are to be mixed, said standard having an opening in its front wall below said mixing button, a lever pivoted at its inner end in said standard for vertical swing and extending out through said opening, a shelf structure secured to the front end of said lever for receiving the base of a container, a circuit for said motor, contacts for controlling said circuit, yielding means for swinging said lever to upper normal position when there is no container on said shelf structure, application of a container on said shelf structure causing said lever to swing downwardly, and means for causing engagement of said contacts when the lever is swung downwardly whereby to close the motor circuit.

4. In a drink mixer of the class described, the combination of a hollow standard, a motor supported at the upper end of said standard, a spindle connected with the motor armature and extending vertically downwardly in front of said standard and terminating in a mixing button, a clip on said standard below said motor for holding the upper end of a container, the front wall of said standard having an opening below said mixing button, a lever structure pivoted at its inner end in said standard and extending forwardly through said opening, a shelf structure on the outer end of said lever for receiving the base of a container, a circuit for said motor, contact springs mounted within said standard for controlling said circuit, an actuating spring mount-

ed in said standard in front of said contact springs and having abutting engagement with said lever and tending to swing said lever upwardly to a normal position when there is no container on the shelf structure, application of a container on said shelf structure causing said lever to swing downwardly, and a connection between said actuating spring and contact springs whereby said contact springs will be closed to close the motor circuit when the supporting lever structure is swung downwardly.

5. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on said standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into said position comprising a vertically movable supporting member adapted to receive the base of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the weight of the receptacle and its contents.

6. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on the standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into such position comprising a vertically movable supporting member adapted to receive the base of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by substantially the entire weight of the receptacle and its contents.

7. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on the standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into such position comprising a vertically movable supporting member adapted to receive the base of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the entire weight of the receptacle and its contents.

8. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on the standard, an agitator shaft adapted to be driven by said motor, means for holding the receptacle in its operative position when it is manually shifted into such position comprising a vertically movable supporting member adapted to engage the bottom of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member

and adapted to be held in its closed position by the weight of the receptacle and its contents.

9. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on the standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into such position comprising a supporting member pivoted to swing vertically and adapted to receive the base of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the weight of the receptacle and its contents.

10. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on the standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into such position comprising a vertically movable supporting member disposed below said agitator and adapted to receive the base of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the weight of the receptacle.

11. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on the standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into such position comprising a supporting member pivoted below said agitator to swing vertically and adapted to receive the base of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the entire weight of the receptacle and its contents.

12. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on the standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into such position comprising means for securing the upper portion of the receptacle from lateral displacement and a vertically movable supporting member adapted to engage the bottom of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the weight of the receptacle and its contents.

13. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on the standard,

an agitator shaft adapted to be driven by said motor, mixing means on said agitator, means for holding the receptacle in its operative position when it is manually shifted into such position comprising a supporting member pivoted at its inner end below said mixing means and adapted to receive the base of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the weight of the receptacle and its contents.

14. In a drink mixer of the class described, the combination of a hollow supporting standard, an electric motor mounted on the standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into such position comprising a vertically movable supporting member adapted to receive the base of the receptacle, the inner end of said supporting member being disposed within said standard and the outer end of said member extending outwardly and through an opening in said standard, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the weight of the receptacle and its contents.

15. In a drink mixer of the class described, the combination of a hollow supporting standard, an electric motor mounted on the

standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into such position comprising a supporting member pivoted at its inner end inside of said standard and adapted to receive the base of the receptacle, and an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the weight of the receptacle and its contents.

16. In a drink mixer of the class described, the combination of a supporting standard, an electric motor mounted on said standard, an agitator shaft adapted to be driven by said motor, means for holding a receptacle in its operative position when it is manually shifted into said position comprising a vertically movable supporting member adapted to receive the base of the receptacle, an electrical switch for controlling the operation of the motor operated by said member and adapted to be held in its closed position by the weight of the receptacle and its contents, and spring means for shifting said supporting member upwardly into its normal position upon the removal of the receptacle.

In witness whereof, I hereunto subscribe my name this 29th day of November A. D., 1922.

STANLEY J. JEMBRZYCKI.