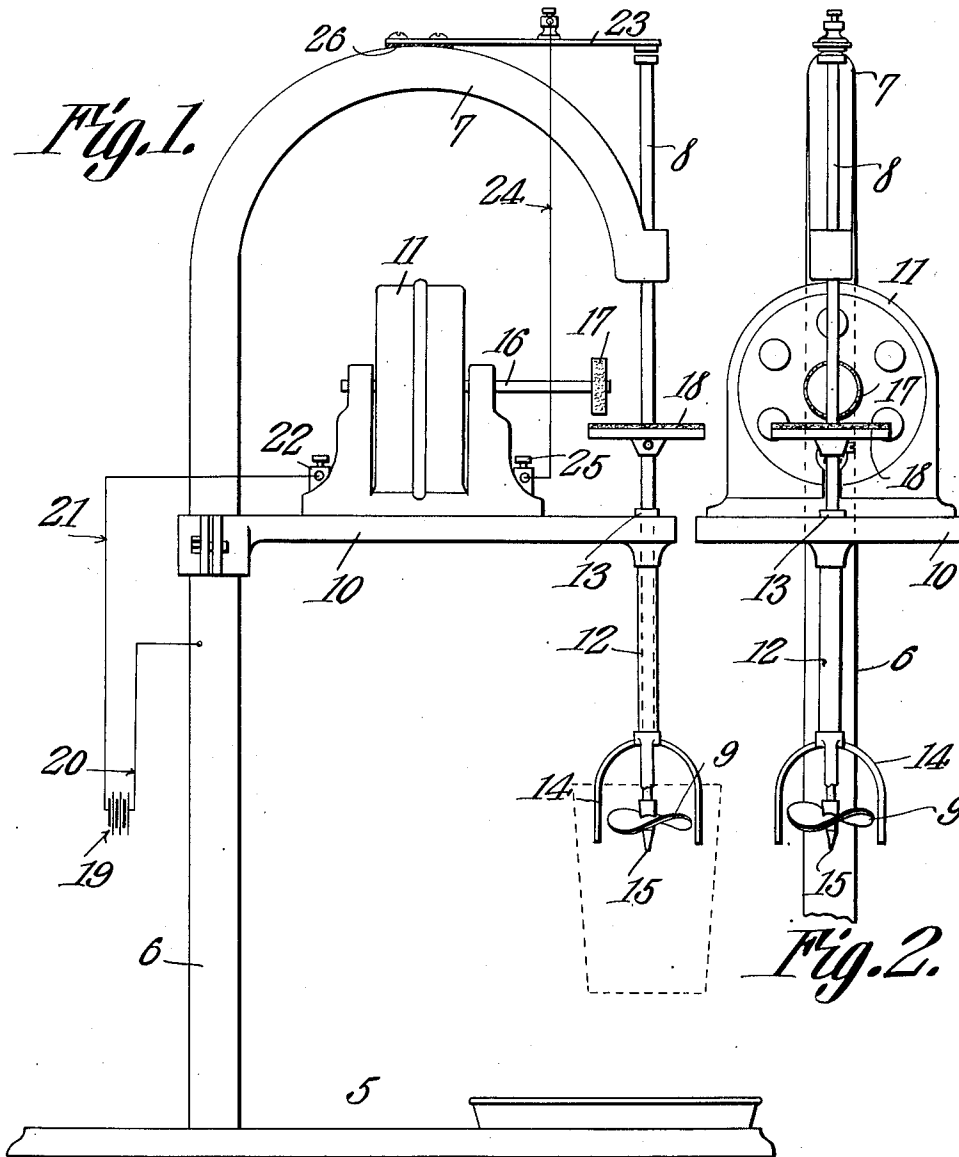


D. B. JACKSON.
MIXING APPARATUS.
APPLICATION FILED FEB. 17, 1909.

941,075.

Patented Nov. 23, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

DAVID B. JACKSON, OF CLARENDON, ARKANSAS.

MIXING APPARATUS.

941,075.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed February 17, 1909. Serial No. 478,450.

To all whom it may concern:

Be it known that I, DAVID B. JACKSON, a citizen of the United States, residing at Clarendon, in the county of Monroe and State of Arkansas, have invented a new and useful Mixing Apparatus, of which the following is a specification.

This invention is an apparatus designed more particularly for mixing drinks, and its aim is to provide in an apparatus of this kind, a novel form of motor driven beater, together with novel and improved means for throwing the beater into and out of operation, a longitudinally movable beater shaft being provided which is operatively connected to the motor shaft by pressure against said beater shaft of the glass or other receptacle containing the liquid to be mixed.

The invention also has for its object to provide a mixing apparatus of the kind stated which is simple in construction, and devoid of complicated parts, and to this end the invention consists in a novel construction and arrangement of parts to be hereinafter described and claimed, reference being had to the drawing hereto annexed in which—

Figure 1 is a side elevation of the apparatus. Fig. 2 is a front elevation partly broken away.

Referring to the drawings, the supporting frame of the machine comprises a base 5 from which rises a column or standard 6 having at its upper end a forwardly presented portion 7 provided with a bearing for the shaft 8 of the beater 9. To the standard 6 is also clamped or otherwise secured a shelf or bracket 10 on which the motor 11 is supported. The outer end of the shelf is also provided with a bearing for the beater shaft 8 and has a depending tubular portion 12 through which the shaft extends. The beater shaft 8 is vertically presented and is fitted with a collar 13 which abuts against the top of the shelf 10 by which the downward movement of the shaft is limited, the shaft being vertically presented, and also movable lengthwise in its bearings, for a purpose to be presently described.

The beater 9 may be of any form best adapted for the purpose for which the apparatus is designed, and it is secured to the lower end of the shaft 8 in any suitable manner. The lower end of the tubular portion 12 carries a series of guide fingers 14 curved in the direction of, and extending

slightly below the beater. The beater shaft 8 extends for a short distance below the beater as indicated at 15, which is for a purpose to be presently made clear.

The motor 11 in the present instance is an electric motor, and its shaft 16 is fitted with a friction disk 17 adapted to engage a friction disk 18 on the beater shaft 8.

At 19 is indicated diagrammatically a suitable source of electric energy one side of which is grounded on the supporting frame of the apparatus by means of a conductor 20 connected thereto, and the other side is connected by a conductor 21 to one of the binding posts 22 of the motor. On the portion 7 of the supporting frame is mounted a contact spring 23 which is connected by a conductor 24 to the other binding post 25 of the motor. The contact spring is insulated from the frame by a strip of insulation indicated at 26. The free end of the contact spring is in the path of the upper end of the beater shaft 8, in order that the latter may make contact therewith, and thus close the circuit of the motor. When contact is thus made, the circuit may be traced through the conductor 20, supporting frame of the apparatus, shaft 8, contact spring 23, and conductor 24 to the binding post 25, and from binding post 22 by conductor 21 to the source.

The operation of the apparatus is as follows: The disks 17 and 18 are normally out of contact, and the contact between the shaft 8 and the contact spring 23 is also broken. Upon placing the glass or other receptacle containing the liquid to be mixed over the beater 9, and forcing the glass upwardly until its bottom comes in contact with the lower end 15 of the shaft 8, and then pressing upwardly on the shaft by the glass till the disks 17 and 18 are in contact, and the upper end of the shaft 8 makes contact with the contact spring 23, the circuit to the motor is closed, and it now being also geared to the beater shaft, through the disks 17 and 18, said shaft is rotated, and the beater is actuated. Upon lowering the glass, the shaft drops down again, and the disks 17 and 18 separate, thus disconnecting the beater shaft from the motor shaft. At the same time the contact of the shaft with the contact spring 23 is broken and the circuit is thus opened. If desired, a water or other suitable motor may be provided, in which case the electric connections of course, are

dispensed with, the apparatus being thrown into and out of operation by the engagement and disengagement of the disks 17 and 18 only.

5 It will be seen from the foregoing that I have provided a mixing apparatus which is simple in construction and which has no complicated parts to get out of order, and by the driving mechanism employed the apparatus is easily operated, it being necessary
10 only to insert the beater into the glass, and press upwardly on the beater shaft by the latter.

What is claimed is:

15 1. A mixing apparatus comprising a supporting frame, a longitudinally movable shaft mounted therein, a beater carried by the shaft, a motor and its drive shaft, and gearing between the beater and motor shafts,
20 said gearing being normally disconnected.

2. A mixing apparatus comprising a supporting frame, a longitudinally movable shaft mounted therein, a beater carried by the shaft, a friction disk on the shaft, a
25 motor and its drive shaft, and a friction disk on the drive shaft engageable with the friction disk of the beater shaft, said disks being normally disconnected.

3. A mixing apparatus comprising a supporting frame, a longitudinally movable
30 shaft mounted thereon, a beater carried by the shaft, an electric motor and its drive shaft, gearing between the beater and motor shafts, said gearing being normally disconnected, a contact spring mounted on the
35 supporting frame in the path of the beater shaft, and an electric circuit adapted to be closed by the engagement of the beater shaft with the said contact spring.

4. A mixing apparatus comprising a supporting frame, a longitudinally movable
40 shaft mounted therein, a beater carried by the shaft, an electric motor and its drive shaft, a normally open electric circuit to which the motor is connected, gearing between the beater and motor shafts, said
45 gearing being normally disconnected, and means for simultaneously connecting said gearing, and closing the circuit.

In testimony that I claim the foregoing as
50 my own, I have hereto affixed my signature in the presence of two witnesses.

DAVID B. JACKSON.

Witnesses:

C. G. WOODFIN,
T. D. BOUNDS.