

(No Model.)

S. C. PETTEGREW.
MOTOR.

No. 524,686.

Patented Aug. 14, 1894.

Fig. I.

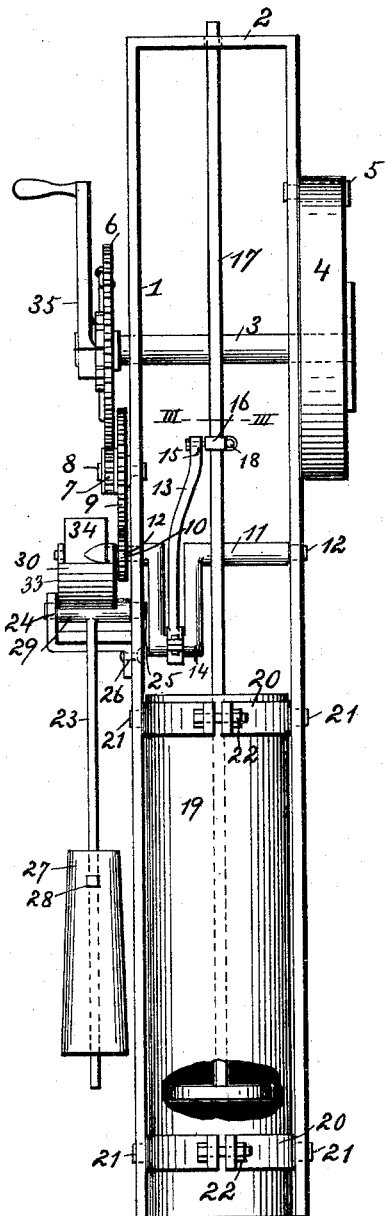


Fig. II.

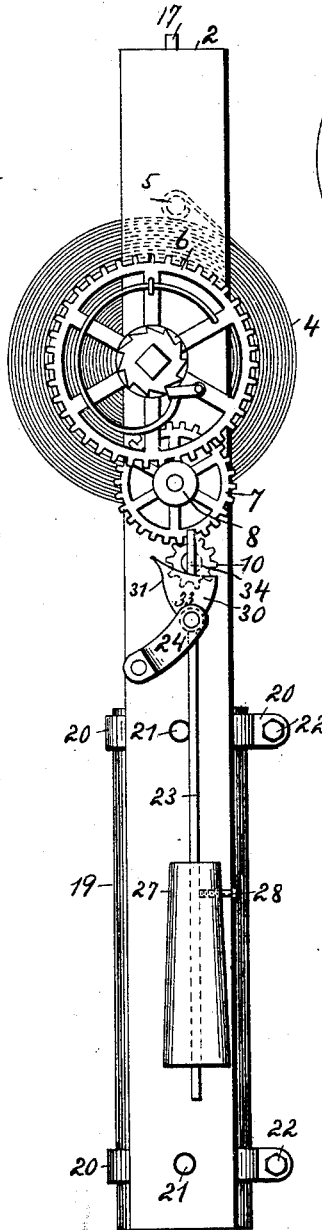


Fig. III.

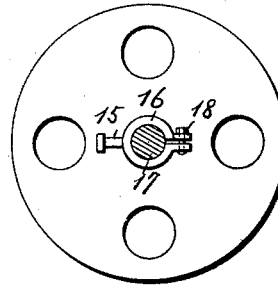
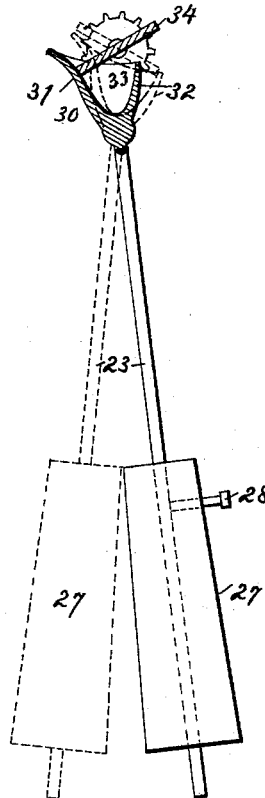


Fig. IV.



Witnesses:
F. G. Fischer
R. L. Silverman

Inventor:
S. C. Pettegrew
By *Amiah Ross* Attys.

UNITED STATES PATENT OFFICE.

SWITHEN C. PETTEGREW, OF BAYARD, KANSAS, ASSIGNOR OF ONE-HALF
TO WILLIAM SMALL, JR., OF KANSAS CITY, MISSOURI.

MOTOR.

SPECIFICATION forming part of Letters Patent No. 524,686, dated August 14, 1894.

Application filed November 7, 1893. Serial No. 490,286. (No model.)

To all whom it may concern:

Be it known that I, SWITHEN C. PETTEGREW, of Bayard, in the county of Allen and State of Kansas, have invented certain new and useful
5 Improvements in Motors for Churns, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

10 My invention relates to certain new and useful improvements in motors for operating churns and various other devices, and it consists in certain features of novelty hereinafter described and pointed out in the claims.

15 Figure I, represents an elevation of my improved motor as adapted to a churn. Fig. II, represents a side elevation of the same. Fig. III, is a transverse section taken on line III, III of Fig. I. Fig. IV, is a detailed view of
20 the governor for regulating the speed of the motor.

Referring to the drawings: 1, represents a standard consisting of two upright portions, joined at their top by a horizontal portion 2.

25 3, represents a shaft, journaled in the frame 1, to which the inner end of a coil spring 4 is attached; the outer end of said coil spring being secured to the frame 1, at 5. To the opposite end of the shaft 3, is secured a gear
30 wheel 6, which meshes with a gear 7, on a shaft 8, said shaft 8 supporting a gear 9, which meshes in turn with a gear 10 on one end of a crank shaft 11, said crank shaft being journaled to the frame 1, at 12.

35 To the crank shaft 11, is pivoted a bar 13, as shown at 14, the opposite end of said bar 13 being pivoted to a pin 15, on an adjustable collar 16. The collar 16, which is made in the form of a clamp, is adjustably secured to
40 the churn dasher 17, by means of a set screw 18. Thus the length of stroke given to the dasher may be regulated by the will of the operator.

The standard 1 is secured to the churn 19
45 by means of clamps 20 which are secured to the standard 1, at 21, and are made adjustable by means of set screws 22.

23, represents a pendulum rod pivoted to a
50 bracket 24, and to the frame 1, at 25. The bracket 24 being secured to the frame 1 at 26.

To the pendulum rod is adjustably secured a regulating weight 27, being made adjustable by means of a set screw 28. The pendulum rod 23, is supported by the bracket 24 and frame 1, by means of a cross-bar 29, said cross-
55 bar supporting a cup 30, being made somewhat V-shaped in cross section, having the wings 31, 32 with inclosing side flanges 33.

34 represents a governor plate secured to the outer end of the crank shaft 11, said gov-
60 ernor plate revolving partly within the V-shaped cup 30.

In operation, when the drive shaft is rotated by means of the spring and the intermediate gear, the churn dasher will be moved
65 up and down, and as the drive shaft revolves, the ends of the governor plate will first come in contact with the curved portion 31 of the cup, thus swinging the pendulum to the right, and when released by the portion 31, will
70 come in contact on the opposite side with the portion 32, thus swinging the pendulum in the opposite direction, as shown in dotted lines Fig. IV. The pendulum thus regulating the speed of the motor. The cup 30 also
75 serves as a receptacle for a lubricant for the governor plate. The wing 31 of the cup 30, is made somewhat longer than the wing 32, and slightly curved outward so as to give greater leverage and free movement to the
80 governor plate.

I have shown my invention as applied to a churn, but do not wish to confine myself to such use, as the same may be used where light
85 power is desired, in various ways.

35, represents a crank or key for winding
up the motor.

I claim as my invention—

1. In a motor, the combination of a suitable frame; a coil spring secured to a shaft; a
90 drive shaft; suitable gear for connecting said shafts; a governor plate on said drive shaft; a pendulum, and wings on the upper end of said pendulum with which said governor plate engages for the purpose of regulating the
95 speed of the motor, substantially as and for the purposes set forth.

2. In a motor, the combination of a supporting frame; a drive shaft journaled there-
to, means for actuating said drive shaft, a
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governor plate on said drive shaft, a pendulum supported by said frame, and a cup on the upper end of said pendulum into which the governor plate extends on each revolution, substantially as set forth.

3. In a motor, the combination of a drive shaft, a suitable frame to which said drive shaft is pivoted, a governor plate on said drive shaft, a pendulum supported by said frame, having a cup on its upper end, V-

shaped wings on said cup with which said governor plate comes in contact, one of said wings being of greater length than the other wing and curved outwardly, substantially as set forth.

SWITHEN C. PETTEGREW.

Witnesses:

JAS. E. KNIGHT,
H. W. HOFFMAN