

No. 721,834.

PATENTED MAR. 3, 1903.

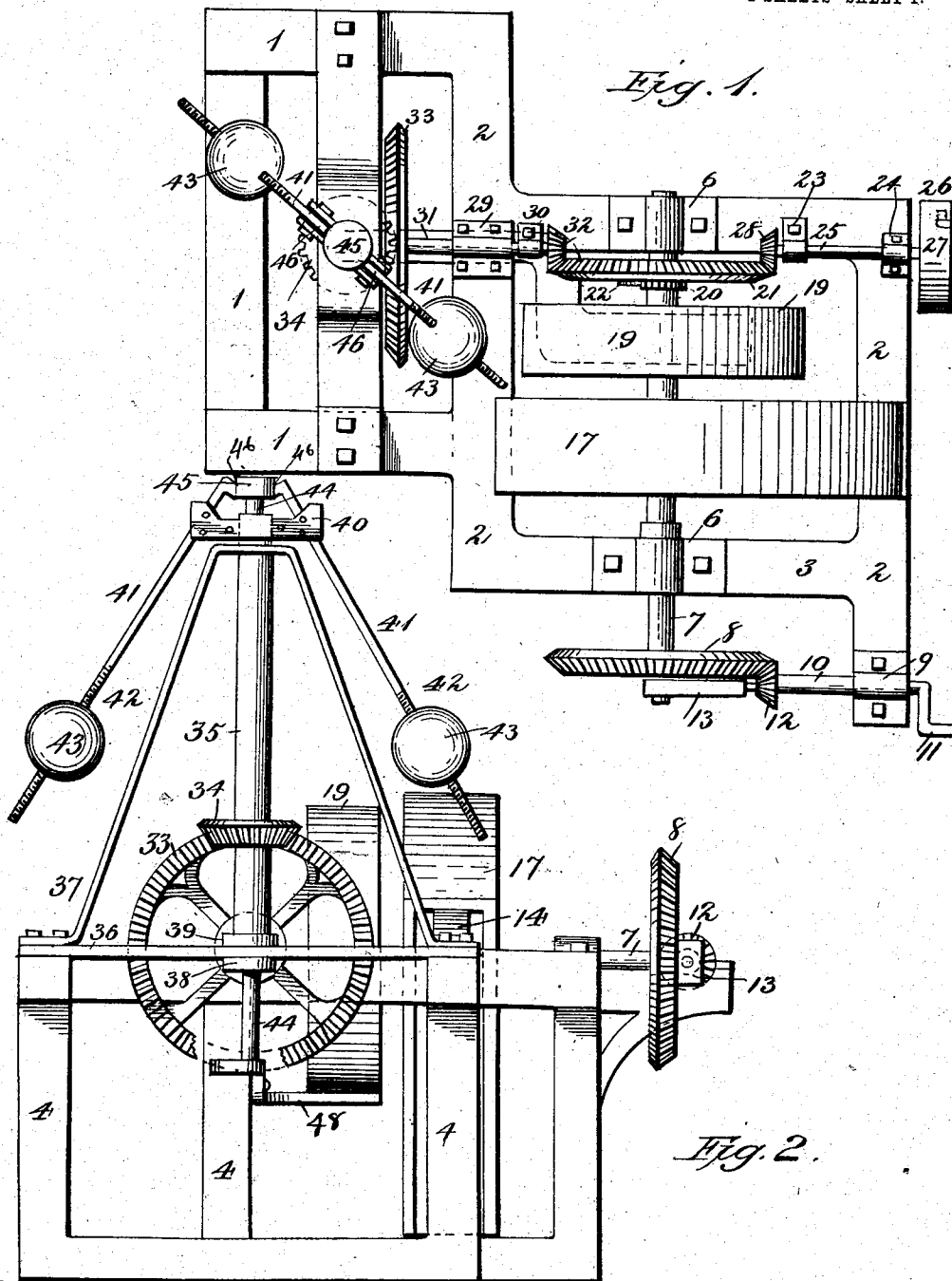
C. C. ROBERTSON.

POWER MOTOR.

APPLICATION FILED AUG. 2, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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2 SHEETS—SHEET 2.

Fig. 4.

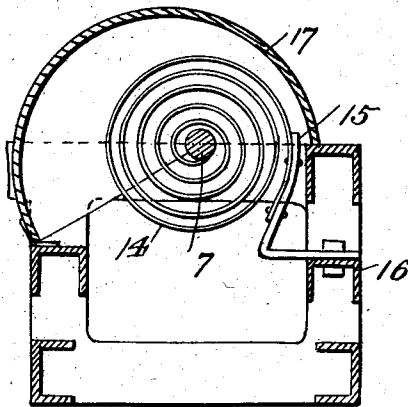
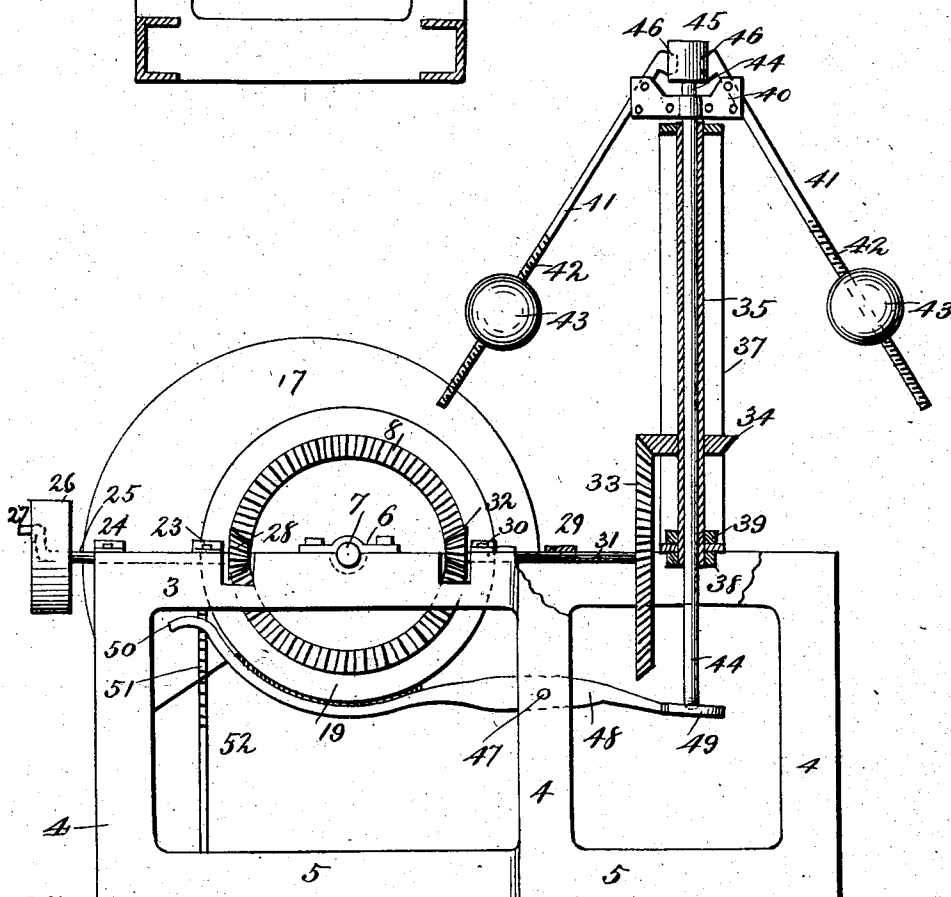


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHASTINE CLATON ROBERTSON, OF FORDYCE, ARKANSAS, ASSIGNOR OF
ONE-HALF TO C. L. FRANKLIN, OF FORDYCE, ARKANSAS.

POWER-MOTOR.

SPECIFICATION forming part of Letters Patent No. 721,834, dated March 3, 1903.

Application filed August 2, 1902. Serial No. 118,100. (No model.)

To all whom it may concern:

Be it known that I, CHASTINE CLATON ROBERTSON, a citizen of the United States, residing at Fordyce, in the county of Dallas and State of Arkansas, have invented certain new and useful Improvements in Power-Motors; 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.

My invention is a power-motor; and it consists of a frame carrying gearing operated by a power-spring and regulated by a governor, as hereinafter shown and described in this specification and the claims hereunto attached.

In the accompanying drawings, Figure 1 is a top plan view of my invention. Fig. 2 is a front elevation. Fig. 3 is a longitudinal sectional elevation. Fig. 4 is a sectional view of the power-spring, the cap, and the frame which holds the said mechanism.

My invention is described as follows:

1 represents the top beams of the front part of the framework.

2 represents the cross-beams, top part, and 3 the longitudinal beams of the top part of the framework.

4 represents the vertical beams, and 5 the base-beams, of the framework. The principal parts of this framework may be cast all in one piece, or the entire frame may be made of wood and put together as other frames are, and the various parts of the frame may be braced by what are known as X-braces, which, however, are not shown in the drawings.

Journalled on the top face of the longitudinal beams of the rear part of the framework in bearings 6 is a shaft 7, and on the left-hand end of this shaft 7 is rigidly secured a large gear-wheel 8.

Journalled in the left-hand end of the rear cross-beam 2 in a bearing 9 is a shaft 10, having on one end an elbow-crank 11 and on the other a small gear-wheel 12, meshing with the gear-wheel 8, just mentioned. The shaft 7 extends outwardly beyond the outer face of the large gear-wheel 8, and on the end thereof is a bearing 13, and in the rear end of this bearing works the front end of the shaft 10.

Rigidly secured to the said shaft 7 is the inner end of a coil power-spring 14, its outer end being secured to a keeper 15, which is in turn secured to one of the cross-beams 16 of the frame. Fitting over this power-spring is a cap 17, one side of which is hinged to one of the cross-beams 18 of the frame. Just beyond this power-spring or to the left of it and rigidly secured to the said shaft 7 is a friction-wheel 19, and just beyond the friction-wheel or to the left of it and on the said shaft 7 is rigidly secured a ratchet-hub 20, and resting against the face of said ratchet-hub and journaled on said shaft is a bevel drive-wheel 21, which is held from turning in one direction by a dog 22 and allowed to turn in an opposite direction by the same dog.

Longitudinally journaled on the rear end and top of the left-hand beam of the rear frame in bearings 23 and 24 is a shaft 25, having rigidly secured to its rear end a pulley-wheel 26, having in its outer face an adjustable pin 27, that may be used to operate a pump or equivalent machinery. Said pin is adjustable, so as to give more or less reciprocal motion to a pitman. On the front end of said shaft 23 is rigidly secured a pinion-wheel 28, which meshes with the drive-wheel 21. Secured to the front end of said beam and on top thereof and in bearings 29 and 30 is a shaft 31, having rigidly secured to its rear end a pinion cog-wheel 32, meshing with said drive-wheel 21, and on the front end of said shaft is a large bevel drive-wheel 33. This bevel drive-wheel 33 is partly broken away, as shown in Fig. 2, in order to show part of the mechanism of the machinery that would be otherwise obscured. This bevel drive-wheel 33 meshes with a horizontal cog-wheel 34, rigidly secured on a vertical tube 35. This vertical tube is journaled in two bearings—a bearing 36, which is a perforated bar that runs across the top of the frame, and in another bearing 37, substantially A-shaped, its lower ends secured to the upper face of said bearing 36, its upper end having a perforation through which the upper end of said vertical tube 35 works. Rigidly secured to the lower end of this vertical tube 35 and working under the cross-bearing 36 is a collar 38. Rigidly secured to said vertical tube

and working against the upper face of the cross-bearing 36 is another collar 39. The purpose of these two collars is to keep the said tube 35 from moving up and down when the governor is in motion.

Rigidly secured to the upper end of the tube 35 and above the upper part of the bearing 37 are two plates 40, and hinged in said two plates 40 are arms 41, their lower ends being provided with threads 42, carrying balls 43. The purpose of these balls is that the speed of the governor may be regulated. Running up through said tube 35 is a rod 44, and on the upper end of said rod is rigidly secured a cap 45, having in its periphery and opposite each other recesses 46, in which work the upper ends of the rods 41.

Pivoted to one of the central upright beams 4 by a bolt 47 is a friction-lever 48. The lower end of the rod 44, which is adapted to work up and down in the tube 35, rests on the short end of said arm 48 in a depression 49, while the long arm of said friction-lever is curved and adapted to the periphery of the friction-wheel 19 and terminates in a handle 50, which is adapted to be caught in the notches 51 of the ratchet-bar 52. The curved part of said arm may be lined with rubber or other suitable material. The purpose of this friction-lever is to press against the friction-wheel and lessen the speed of the machine, and this curved end may be hooked up on the ratchets 51, and thus entirely stop the machine even while the power-spring is operative.

The operation of the machine is manifest; but I will briefly describe its operation: I operate the crank-handle either with my hands or by horse-power to wind up the power-spring, and while the power-spring is being wound up the dog 22 slips over the notches of the ratchet-hub 20, and therefore during this operation the drive-wheel 21 does not move; but when the power-spring is wound up and the power let on the said wheel 21 rotates, and thereby rotates the pinion-wheel 28 and also the pulley-wheel 26. From this pulley-wheel 26 any machinery may be operated. The said drive-wheel 21 also at the same time operates the pinion cog-wheel 32 and also its shaft 31 and the bevel drive-wheel 33, which in turn

revolves the governor. It is manifest that by making these gear-wheels relatively larger or smaller I can increase or decrease the speed of the machine at will.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the frame; a shaft journaled on the top of said frame in proper bearings; a power-spring having one end secured to said shaft, and the other to said frame; a large cog-wheel rigidly secured to one end of said shaft; a bearing pivoted on the end of said shaft and beyond said wheel; a small gear-wheel meshing with the said large cog-wheel, and rigidly secured on a shaft journaled on said frame; said shaft adapted to be rotated; a friction-wheel rigidly secured on said first-mentioned shaft; a ratchet-hub also secured on said first-mentioned shaft; a drive gear-wheel also journaled on said first-mentioned shaft, and working against the face of said ratchet-hub; a dog secured to said last-mentioned drive-wheel, and adapted to catch in the notches of said ratchet-hub; a shaft journaled on the opposite side and rear end of said frame; a pulley-wheel rigidly secured on the rear end of said last-mentioned shaft; a pinion-wheel rigidly secured on said last-mentioned shaft, and meshing with said drive-wheel; a shaft journaled on the front end of the rear frame; a pinion cog-wheel rigidly secured on the rear end of said last-mentioned shaft, and meshing with said drive-wheel; a large bevel drive-wheel secured on the front end of said last-mentioned shaft, and adapted to operate a governor; a friction-lever pivoted to one of the upright beams of the frame, one end adapted to press against the friction-wheel, and its other end adapted to be operated by a governor, and a ratchet-bar adapted to hold the curved end of said friction-lever up against the friction-wheel, substantially as shown and described and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHASTINE CLATON ROBERTSON.

Witnesses:

HENRY L. LYON,
GREEN SIKES.