No. 750,858. PATENTED FEB. 2, 1904.

E. R. JOHNSON.

SPEED GOVERNOR FOR MOTORS.

APPLICATION FILED JUNE 21, 1898.

NO MODEL.

Fig 1.

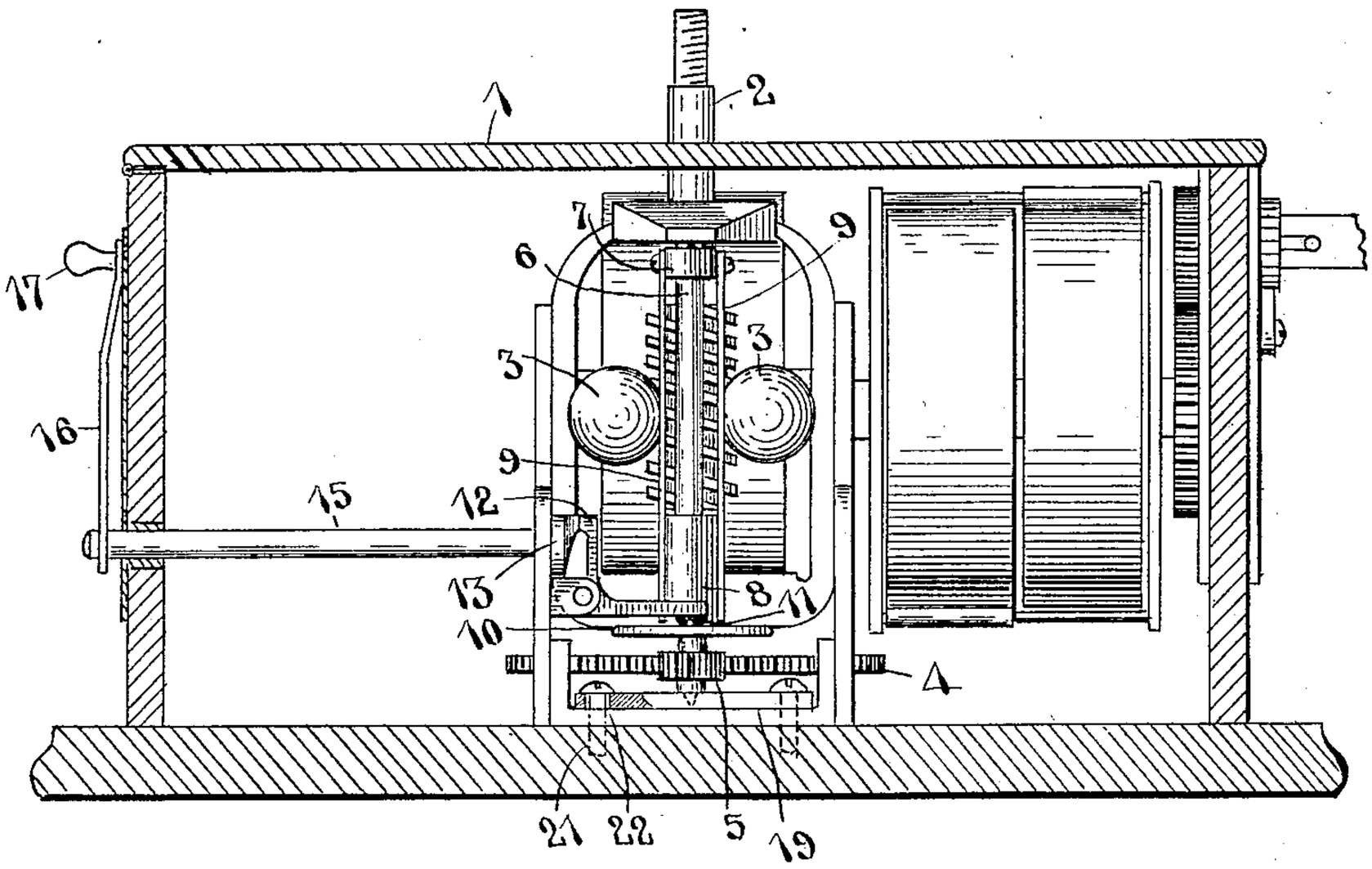


Fig 2.

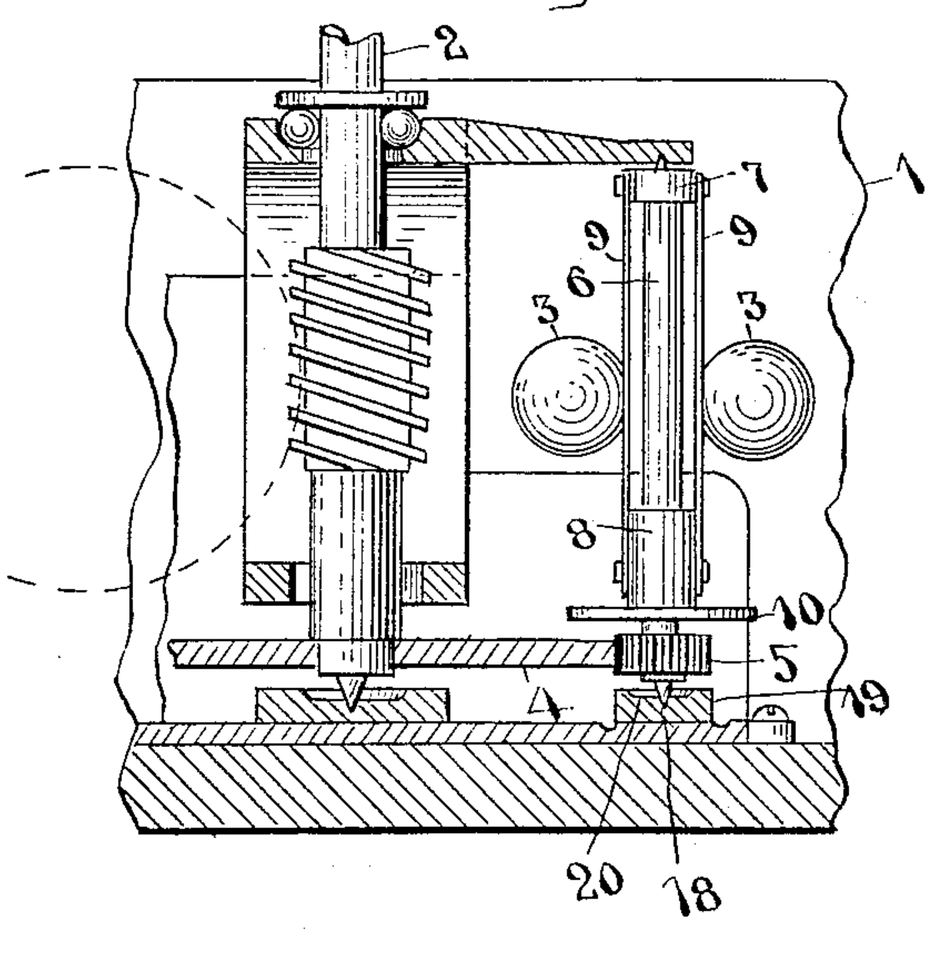
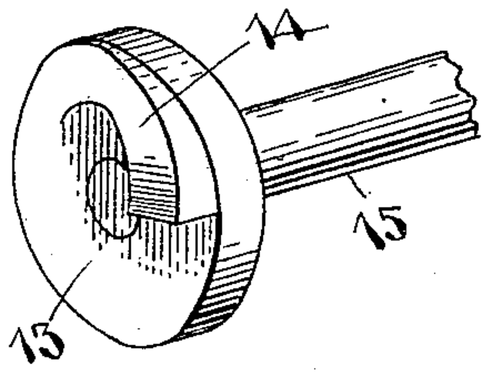


Fig 3.



WITNESSES:
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No. 750,858. Patented February 2, 1904.

UNITED STATES PATENT OFFICE.

ELDRIDGE R. JOHNSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO VICTOR TALKING MACHINE COMPANY, A CORPORATION OF NEW JERSEY.

SPEED-GOVERNOR FOR MOTORS.

SPECIFICATION forming part of Letters Patent No. 750,858, dated February 2, 1904.

Application filed June 21, 1898. Serial No. 684,052. (No model.)

To all whom it may concern:

Be it known that I, ELDRIDGE R. JOHNSON, a citizen of the United States, and a resident of the city of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Speed-Governors for Motors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

The object of my invention is to provide an improved governor-brake mechanism for increasing or diminishing the speed of the motor as may be desired, the construction being simplified and without complicated parts to become disarranged.

With these and other objects in view my invention consists in the construction, combination, and arrangement of parts, all of which will be hereinafter fully described, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a transverse section of the motor-casing, showing the motor mechanism in front elevation and having my improved speed-regulating mechanism shown in connection therewith; Fig. 2, a detail sectional view illustrating bearings for the turn-table spindle and the governor-spindle, and Fig. 3 an enlarged detail perspective of the face of the cam carried by the end of the brake-operating shaft.

The regulator herein described and claimed is particularly designed to be used in connection with motors for talking-machines, but may be used in any instance where a reliable and constant but adjustable speed is required.

In carrying out my invention I provide a box or casing 1, which contains the motor and its connecting parts, which give motion to the vertical spindle 2 and the ball-governor 3. The motor used in this instance is that of the spring type, having one or more spiral springs upon the main driving-shaft. The lower end of the main spindle 2 carries a large gear 4, which meshes with a smaller gear 5, carried by the governor-spindle 6. The governor-spindle 6 is provided with a fixed sleeve 7, which is connected with a slidable sleeve 8 by means of parallel flat springs 9, to which are attached the governor-balls 3. The slidable sleeve 8 is provided with a flange or disk 10, upon which are adapted to press the brake-shoes 11, carried by the bell-crank lever 12. The numeral 13 indicates a disk upon the surface of which is a spiral cam 14, which is adapted to contact with the upper end of the bell-crank lever 12. The cam-disk 13 is carried on a horizontal shaft 15, to one end of which is connected the arm 16, having at its outer end the handle 17 for moving the same into different positions.

The bearing for the lower end of the spindle 2 consists of a pivot-point 18, formed on the end of said spindle and adapted to fit in a correspondingly-shaped socket formed in the bearing-plate 19. A countersunk opening or cup 20 is formed around said socket, providing a receptacle for oil or other suitable lubricant. The bearing-plate 19 is adjustably secured to the frame by means of the screws 21 passing through enlarged openings 22 in the said plate 19. This will enable the said spindle and its pinion 5 to be adjusted in relation to the gear 4, so as to always allow of perfect meshing of said gears 4 and 5.

Having thus described my invention, what I claim, and desire to protect by Letters Patent of the United States, is—

1. In combination with a motor, a speed-governor geared thereto, a disk carried by the governor-spindle adapted to slide on said spindle by the centrifugal action of the governor-balls, a bell-crank lever pivoted adjacent to said disk and having one arm bearing against the same, a shaft mounted in the machine-casing, a disk having a cam-face, rigidly secured upon the inner end of said shaft and adapted to bear against the free arm of the bell-crank lever and an operating-handle on the outer end of the horizontal shaft.

2. In combination with a motor, a speed-governor geared thereto, a disk carried by the governor-spindle adapted to slide on said spindle by the centrifugal action of the governor-balls, a bell-crank lever pivoted adjacent to said disk having one arm bearing against the same, a horizontal shaft mounted in the machine-casing, a disk having a cam-face rigidly

secured on the inner end of said shaft, the said cam-face adapted to bear against the free arm of the bell-crank lever, an arm rigidly secured to the outer end of the horizontal shaft and a handle fixed to said arm.

3. In combination with a motor, a speed-governor, a disk 10 connected to the governor mechanism, a bell-crank lever 12 pivoted to the motor-frame having an arm carrying a brake-shoe 11 adapted to bear on said disk 10, a horizontally-disposed shaft 15 mounted in the supporting-frame and casing, a cam 13 rigidly secured to the inner end of said shaft 15 and having an inclined or wedge-shaped surface 14, an arm 16 rigidly secured to the outer end of the shaft 15 and a handle 17 secured to said arm.

4. The combination of a driving-shaft, driving mechanism for said shaft, a governor-spindle geared to the driving-shaft, a base-plate in which the lower end of said governor-spindle is journaled, and set-screws for securing said base-plate to the main frame, there being enlarged openings in said base-plate for the reception of set-screws whereby said governor-spindle may be adjusted with relation to the motor mechanism.

In witness whereof I have hereunto set my hand this 6th day of June, A. D. 1898.

ELDRIDGE R. JOHNSON.

Witnesses:
BENJ. F. PERKINS,
HORACE PETTIT.