

(No Model.)

C. L. JAEGER.
GOVERNOR FOR ELECTRIC MOTORS.

No. 415,641

Patented Nov. 19, 1889.

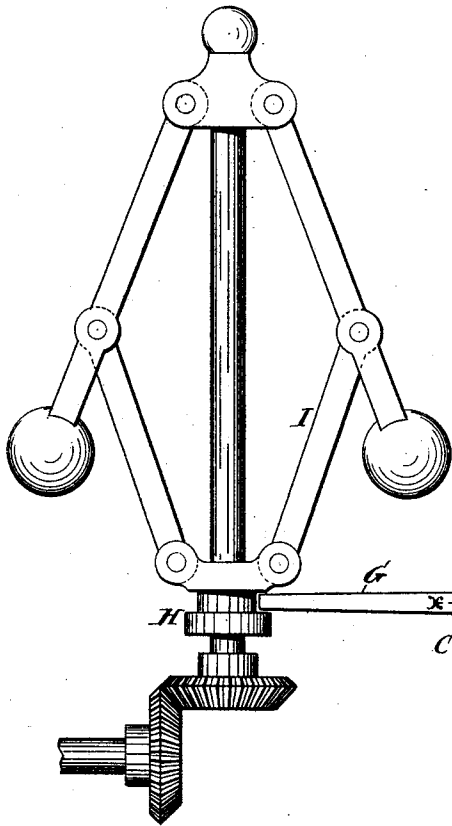


Fig. 1.

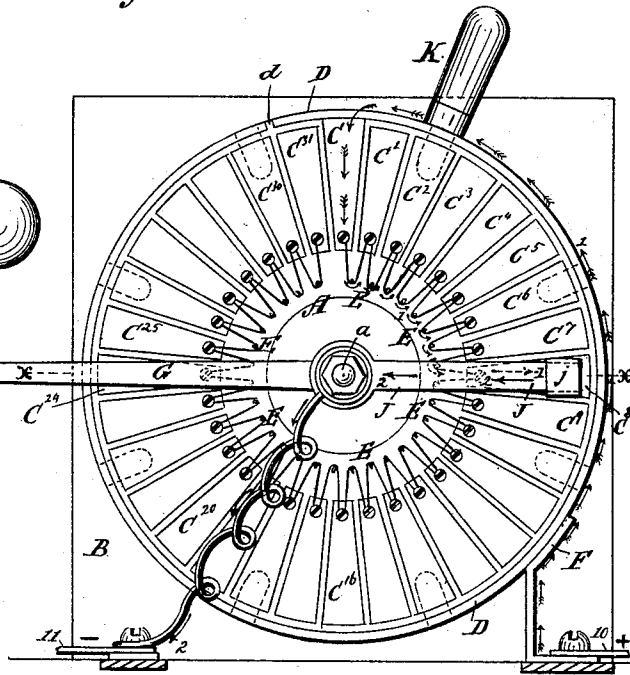


Fig. 2.

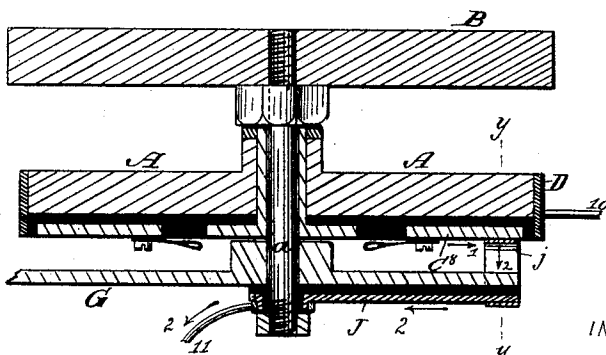
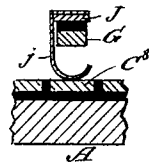


Fig. 3.



WITNESSES:

Eduard Wolff.
Oscar A. Michel.

INVENTOR:

Charles L. Jaeger

BY

Van Santvoord & Hauck,

ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES L. JAEGER, OF NEW YORK, N. Y.

GOVERNOR FOR ELECTRIC MOTORS.

SPECIFICATION forming part of Letters Patent No. 415,641, dated November 19, 1889.

Application filed August 29, 1889. Serial No. 322,304. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. JAEGER, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Governors for Electric Motors, of which the following is a specification.

This invention has relation to an electric-motor governor, the object being to provide an electrical device or devices to be used in connection with a centrifugal or other mechanical governor in such a manner that as the variations of the speed of the electric motor shall affect the mechanical governor it in turn shall vary the force of the electric current which actuates the motor. The peculiar and novel construction of my governor is pointed out in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 represents a front elevation. Fig. 2 is a horizontal section in the plane xx , Fig. 1. Fig. 3 is a vertical section in the plane yy , Fig. 2.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates a disk, which may be made of wood or any other suitable material, and which is mounted on a stud a , secured in a standard B. In the face of this disk, but carefully insulated from the same and from each other, are fitted a series of metallic contact-pieces C C' C² C³ C⁵ C⁶, &c., the surfaces of which are flush with the surface of the disk.

D is a metallic ring fitted upon the circumference of the disk A and provided with a break d . This ring is in metallic contact with the contact-piece C, but it is insulated from all the other contact-pieces C' C², &c. All the contact-pieces, with the exception of those marked C³¹ and C, are connected by resistances E, and the metallic ring D bears against a metallic shoe F, which connects by a wire 10 with one—say the positive—pole of an electric generator. On the outer end of the stud a is fitted a lever G, one end of which engages the sleeve H of the mechanical governor I, so that by the rising and falling movement of this sleeve an oscillating motion is imparted to the lever G. On this lever, but insulated from the same and from the stud a , is firmly secured a metallic contact-arm J, from which

extends a brush j , which in the example shown in the drawings is made of sheet metal and bears upon the surface of the disk A, Figs. 2 and 3. The contact-arm J connects by a wire 11 with the negative pole of the electric generator, and the circuit of the wires 10 and 11 includes an electric motor (not shown in the drawings) from which motion is imparted to the governor I. In the position represented by the drawings the electric current passes from the electric generator through wire 10, friction-shoe F, and metallic rim D to the contact-piece C, thence through the resistances E to contact-piece C⁸, as indicated by arrows 1, thence through the brush j to the contact-arm J, thence through wire 11 to the electric motor, and from this to the negative pole of the battery. If the speed of the electric motor increases, the sleeve H of the governor I is moved up and the brush j of the contact-arm J is moved from the contact-piece C⁸ to the contact-piece C⁹. By this movement an additional resistance E is thrown into the circuit, the force of the electric current which actuates the electric motor is reduced, and as the speed of this motor diminishes the sleeve H moves down and the lever G is returned to its normal position.

The disk A is provided with a handle K, so that it can be turned on the stud a , and thereby the disk can be adjusted to the force of the electric current—that is to say, it can be adjusted so as to compel the electric current to pass more or less of the resistances E before it reaches the electric motor.

The resistances E should in practice have a coil at the bends adjacent to the base or support A, for if made without a coil they would soon be burned.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a governor for electric motors, the combination, with a mechanical governor, of the movable base or support A, provided with contact-pieces C C' C², &c., and resistances E E, the metallic ring D, secured to said base or support and in metallic contact with one of the contact-pieces C, the contact-arm J, connected to the governor, and suitable connections with an electric generator, substantially as described.

2. In a governor for electric motors, the com-

5 bination, with a mechanical governor, of the movable disk A, provided with contact-pieces C C' C², &c., and resistances E E, the metallic ring D, secured to said disk and in metallic contact with one of the contact-pieces C, the contact-arm J, connected to the governor, and suitable connections with an electric generator, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES L. JAEGER.

Witnesses:

W. C. HAUFF,
W. HAUFF.