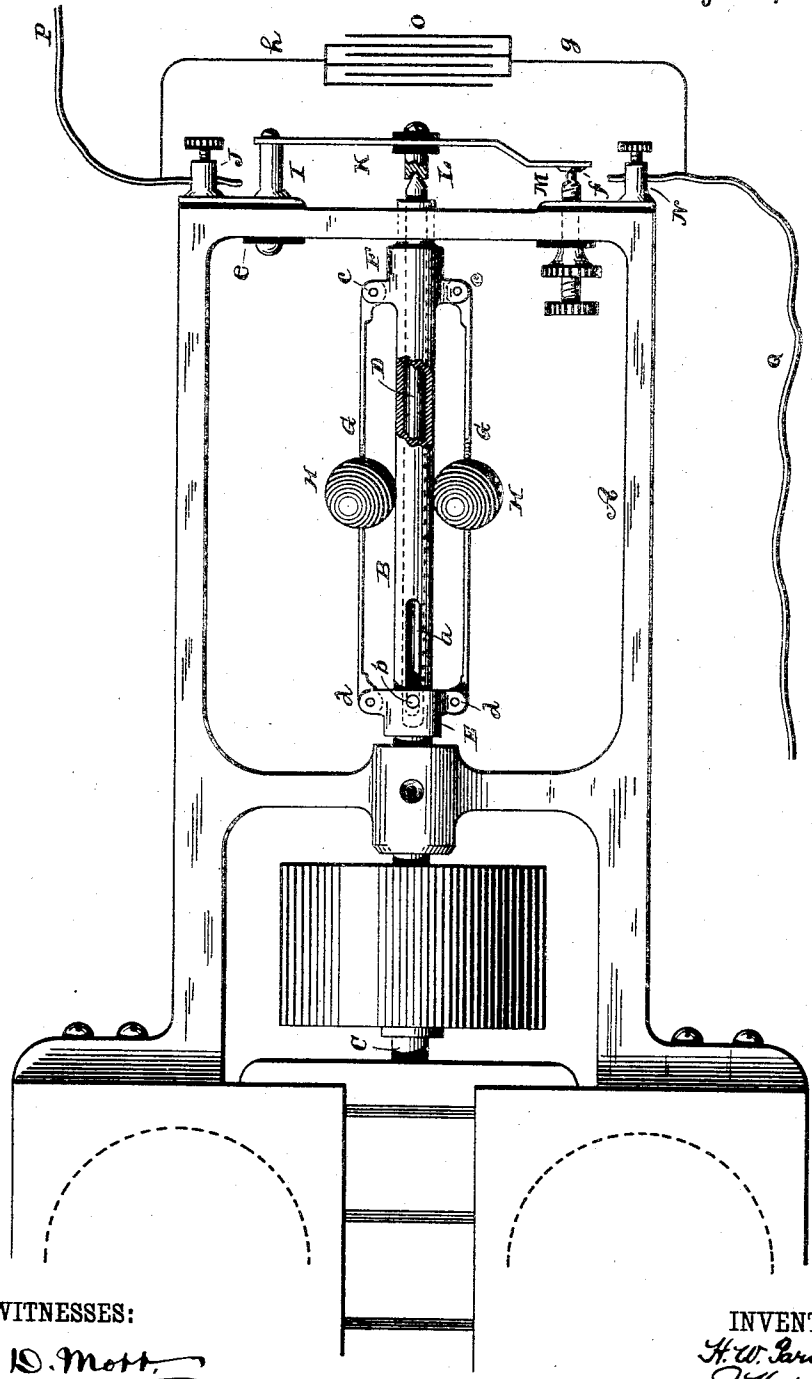
(No Model.)

H. W. PARSONS & J. HODUIT.

ELECTRIC GOVERNOR.

No. 386,602. Patented July 24, 1888.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HORACE WARREN PARSONS AND JOHN HODUIT, OF WAMEGO, KANSAS.

ELECTRIC GOVERNOR.

SPECIFICATION forming part of Letters Patent No. 386,602, dated July 24, 1888.

Application filed September 26, 1887. Serial No. 250,760. (No model.)

To all whom it may concern:

Be it known that we, HORACE WARREN PARSONS and JOHN HODUIT, both of Wamego, in the county of Pottawatomie and State of Kansas, have invented a new and Improved Electric Governor, of which the following is a specification, reference being had to the accompanying drawing, which is a side elevation of our improved governor.

The object of our invention is to construct a simple and effective electric governor for controlling the current from a dynamo and governing the speed of electric motors.

Our invention consists in a centrifugal governor provided with a contact-piece moved by the centrifugal action of the governor, and in the combination therewith of a condenser for preventing sparks at the contact-surfaces.

In the frame A is journaled the shaft B, which may be connected directly with the armature shaft C of the dynamo or electric motor; or it may form an extension of the armature-shaft; or, if desirable, the said shaft may be connected with the dynamo or motor by means of a belt or gearing.

The shaft B is made tubular for a portion of its length for receiving the rod D, which extends through the extremity of the shaft and projects beyond the end of the frame A. In the side of the shaft B is formed a slot, *a*, and a sleeve, E, arranged to slide upon the shaft B, is connected with the rod D by a pin, *b*. The shaft B is provided with a head, F, having ears *c*, between which are pivoted the ends of the springs G, the opposite ends of the said springs being pivoted between ears *d*, projecting from the sides of the sleeve E. Upon the springs G, at their mid-length, are mounted weights H, which are capable of bending the springs G more or less when the shaft B is revolved.

To the end of the frame A, upon one side of the shaft B, is secured a post, I, with insulation *e* intervening between the post and its fastenings and the frame A. The binding-post J, also insulated from the frame A, is connected electrically with the post I, and the post I supports a spring, K, which carries at its free extremity a contact-surface, *f*. The spring K at its mid-length carries a step, L, which is insulated from the spring and adapted to bear upon the conical end of the rod D. A contact-screw, M, supported by the frame A, but insulated therefrom, is arranged in the path of the contact-piece *f*, carried by the spring K, so that the contact-piece is normally in contact with the screw M. A binding-post, N, communicates electrically with the contact-screw M. A condenser, O, is connected with wires *g h*, which extend to the binding-posts N J, and the condenser serves to distribute the extra current which is developed when the contact is broken between the contact-piece *f* and the screw M, thus preventing the burning out of the contact-surfaces.

We do not limit or confine ourselves to the employment of a condenser, as a rheostat having sufficient resistance may be employed in lieu thereof, which will allow the extra current flowing in opposite directions to the binding-posts J N to neutralize itself.

In the case of a motor the current is furnished through conductors P Q, connected with the binding-posts J N, and when the speed of the motor increases beyond the prescribed limit the flying out of the weights H by centrifugal action bows the springs G and forces out the rod D, thereby lifting the free end of the spring K from the contact-screw M, thus breaking the electric circuit and holding the circuit open until the normal speed is regained.

In the case of a dynamo, the current flowing through the conductors P Q and through the parts of the governor connected therewith is interrupted momentarily when the speed is too great.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In an electric governor, the combination of a tubular shaft, a rod in the shaft, a sleeve fitted to slide on the shaft and connected to the rod, springs pivoted to the shaft and sleeve, weights on the springs, and a circuit-interrupting spring operated by the said rod, substantially as described.

2. In an electric governor, the combination of a tubular shaft provided with a longitudinal slot, a rod in the shaft, a sleeve fitted to slide on the shaft and connected to the rod by a pin projecting into the slot, springs pivoted

to the shaft and sleeve, weights on the springs, and a circuit-interrupting spring provided with an insulated step, with which the end of the rod engages, substantially as described.

3. In an electric governor, the combination of a tubular shaft, a rod in the shaft, a sleeve fitted to slide on the shaft and connected to the rod, springs pivoted to the shaft and sleeve, weights on the springs, a circuit-interrupting spring provided with a step, with which the rod engages, a condenser, and the contacts and electrical connections, substantially as herein shown and described.

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Witnesses:
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