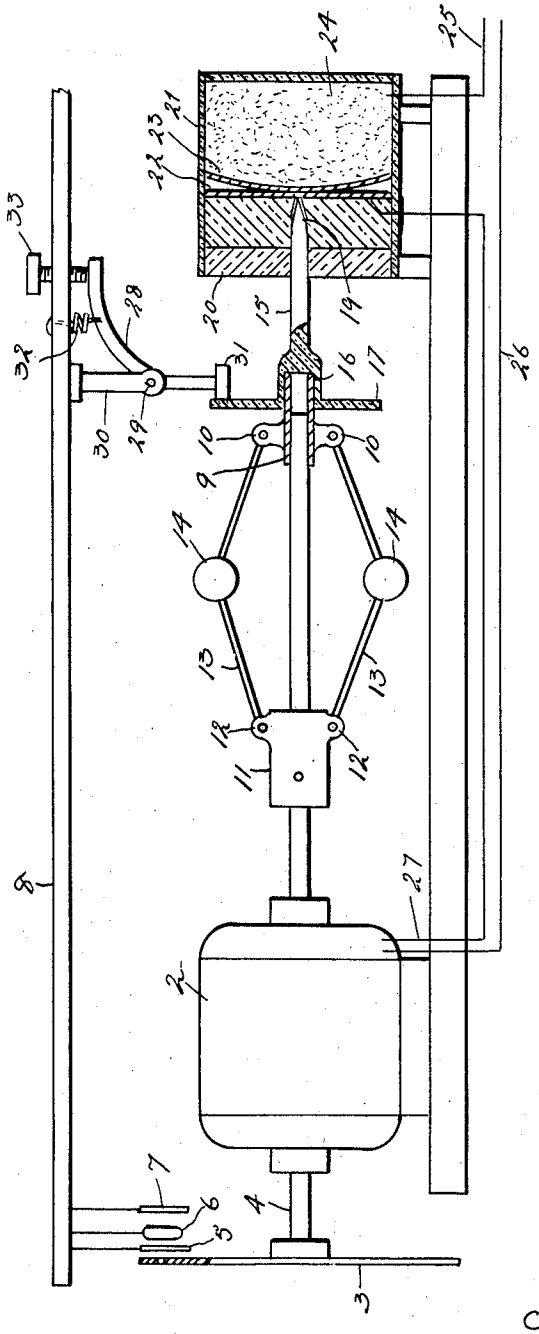
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CENTRIFUGAL VARIABLE RESISTANCE GOVERNOR

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CENTRIFUGAL VARIABLE RESISTANCE GOVERNOR

Original application filed September 13, 1929, Serial No. 392,476. Divided and this application filed April 28, 1931. Serial No. 533,421.

My invention relates to new and useful improvements in the centrifugal variable resistance synchronism governor. the same being a division from my co-pending application Serial #392,476 filed September 13th, 1929, and has for one of its objects to provide an exceedingly simple and effective device of this character whereby the motors of television transmitting and receiving apparatus may be so controlled that the motor of the receiving set may be maintained at the same speed as the motor of the transmitting station, whereby the screen disc will revolve at the same speed regardless of the variations of the current used for the operating motors.

Another object of the invention is to provide a motor governor using a resistance changeable by compression and expansion.

A further object of the invention is to simplify the construction of devices of this kind.

With these and other ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by numerals to the accompanying drawing forming a part of this application, in which:—

The figure is a side elevation of a motor showing its connection with the governing means, portions of which are illustrated in section and also showing a means for limiting the movement of the parts in one direction, and the screen disc, a portion of the latter being broken away.

In carrying out the invention as herein embodied, 2 represents the motor for revolving the screen disc 3 of a television apparatus, either the transmitter or the receiver, said disc being mounted upon one end of the shaft 4 of the motor, the ends of which project from both ends of the motor. Associated with the screen disc is the usual ground glass 5 or other equivalent means, to neon lamp 6 and the reflector or mirror 7. If it is desirable said elements 5, 6 and 7 may be suspended from a suitable support 8.

On the end of the shaft 4 opposite the screen disc 3 is mounted a sleeve 9 so as to slide longitudinally of said shaft, and said sleeve is provided with ears 10. On the same end of the shaft as the sleeve 9, is fixed a collar 11 having ears 12. In the ears of the collar and sleeve are journalled the ends of the governor arms 13, which carry the governor balls 14.

On the outer end of the sleeve 9 is mounted a trunnion 15 of suitable non-conducting material, including a socket 16 to receive the sleeve 9, a disc 17 and a tapered outer end 19.

The trunnion 15, and more particularly the tapered end thereof, projects through and has its bearing in the bushing 20 forming an end wall or closure for the casing 21 which bushing and casing are all non-conducting material.

The end of the trunnion 15 terminates in contact with or in close proximity to the metal plate or disc 22 within said casing and said metal plate or disc 22 bears against the diaphragm 23 enclosing the granulated carbon 24 or its equivalent electrical resistance substance.

One side of the resistance element, as the carbon 24, is connected by a conductor 25 with one side of a source of electrical energy, and the other side of said source is connected by a conductor 26 with one pole of the motor 2 while the other pole of said motor 2 is connected by a conductor 27 with the other side of the electrical resistance device, as with the metallic plate 22.

In operation, when the centrifugal governor is contracted pressure will be applied to the carbon and thus lessen the resistance in the line connected with the motor, but when the centrifugal governor is distended pressure on the carbon will be removed, thereby increasing the resistance in the line between the source of electrical energy and the motor thus accurately governing the speed of the motor so as to maintain it at a critical speed relative to another motor to the speed of which it has been previously adjusted.

To determine the limit to which the resist-

ance element may be compressed a lever 28 is pivoted at 29 in a bracket 30 which may depend from the support 8 and on one end of this lever is journalled a wheel or roller 31 for co-action with the disc 17 when the latter is moved into engagement with the wheel thereby stopping or limiting the longitudinal outward movement of the trunnion 15 but in no way interfering with the revolutions thereof. A spring 32 having one end connected with support 8 and the other end with the lever 28 tends to move said lever in a direction which will move the wheel 31 away from the disc 17 but the movements of said lever are governed by the set screw 33, the adjustment of which will position the lever 28 to limit the outward movement of the trunnion 15 through the medium of the wheel 31 and disc 17.

Of course, I do not wish to be limited to the exact details of construction herein shown and described as these may be varied within the limits of the appended claim without departing from the spirit of my invention.

Having thus fully described my invention what I claim as new and useful is:—

In a device of the kind described, a motor a centrifugal governor mounted upon the shaft of said motor and including a sleeve slidable along the motor shaft, an electrical resistance unit comprising a casing of non-conducting material located in end-wise alignment with the motor shaft, a diaphragm of electrical conductive material mounted within said casing and capable of flexion, finely divided carbon within the compartment formed by the casing and diaphragm, a plate of electrical conductive material in engagement with said diaphragm, a trunnion of non-conducting material mounted on the sleeve of the centrifugal governor and journalled in the casing for co-action with the plate, for applying pressure thereto to be transmitted to the diaphragm and thence to the carbon, a source of electrical energy, and a circuit including said source, the motor and the resistance unit.

In testimony whereof, I have hereunto affixed my signature.

ALVA KENNETH HINCHMAN.