

No. 860,339.

PATENTED JULY 16, 1907.

F. J. SLIFKA.
CONTROLLING DEVICE.
APPLICATION FILED AUG. 24, 1906.

Fig. 1.

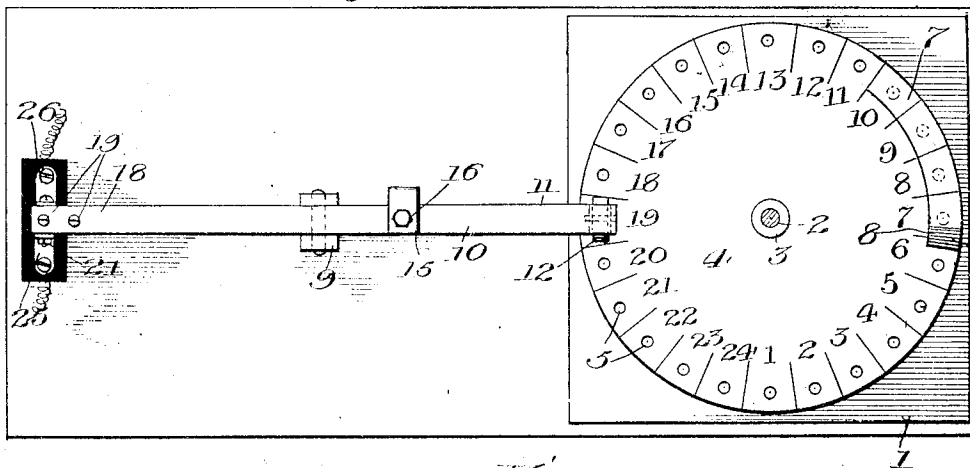


Fig. 2.

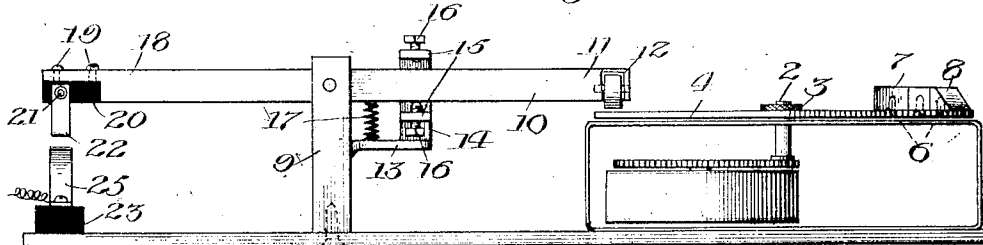


Fig. 3.

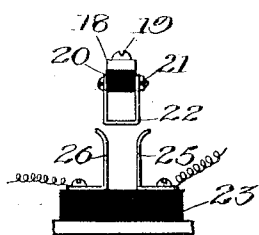
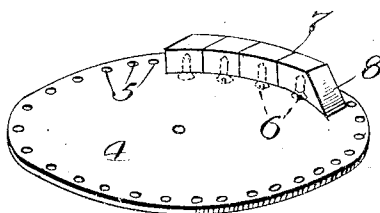


Fig. 4.



Witnesses:
O. H. Harguel
E. H. Harguel

Inventor
Frank J. Slifka
By Benj. T. Roodhouse, atty.

UNITED STATES PATENT OFFICE.

FRANK J. SLIFKA, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO CHARLES A. RITZA,
OF CHICAGO, ILLINOIS.

CONTROLLING DEVICE.

No. 860,329.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed August 24, 1906. Serial No. 331,914.

To all whom it may concern:

Be it known that I, FRANK J. SLIFKA, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Controlling Devices, of which the following is a specification.

My present invention has special reference to the provision of a simple and inexpensive device for starting, continuing and stopping physical or mechanical operations at definite periods of time.

In the present specification I will describe and illustrate my device as applied to the starting, continuing and stopping of an electric lighting circuit.

To the accomplishment of the above objects my invention embodies new and novel forms and combinations of parts as will presently appear.

In the drawings:—Figure 1 is a front elevation of my device looking directly at the face of the disk. Fig. 2 is a side elevation of the device. Fig. 3 is an end view of the circuit closing portion of my device with the parts out of contact. Fig. 4 is a detail of the cam sections and their means of attachment to the disk for adjusting the time of operation.

The reference numeral 1 designates a clock mechanism. It is possible to employ a clock mechanism adapted to operate with a twelve division or hour dial; but, in the present embodiment of my invention, I find such a mechanism as is adapted to operate with a twenty four division or hour dial to be much more convenient, as with such a form of mechanism running for eight days, an adjustment can be made and no further manipulation is necessary except a re-winding at the end of each eight days.

The numeral 2 designates an hour hand shaft of a clock mechanism to which is attached by means of the knurled nut 3 the disk 4. The circumference of the disk 4 is divided into either twelve or twenty four equal divisions according to the variety of clock mechanism employed. The divisions may be numbered consecutively for convenience but it will be observed that as the disk revolves, instead of a hand revolving above a dial, the disk must be numbered in the reverse direction to the numbers upon the dial of a clock.

Adjacent to the periphery of the disk I provide the holes 5 through which pass the screws 6 to secure to the face of the disk segments of the circular cammed rail 7. I refer to the rail 7 as cammed as it will be seen that its advancing end 8 is provided with a surface at an angle with the face of the disk.

To the pillar 9 is pivoted the arm 10, the end 11 of which is provided with the roller 12 which comes directly over the track of the rail 7. The pillar 9 is further provided with the bracket 13 which carries the vertical post 14 having the lugs 15 extending above and be-

low the arm 10. The lugs 15 are provided with the screws 16 by means of which the latitude of oscillation of the arm 10 may be adjusted. Attached to the arm 10 and the bracket 13 is the spring 17 to draw the end 11 toward the face of the disk 4.

To the end 18 of the arm 10 is attached by means of the screws 19 the piece of non-conducting material 20. To the non-conducting piece 20 is attached by means of the bolt 21 the circuit closing piece 22. Directly below the circuit closing piece 22 is located the non-conducting block 23 to which are attached by means of the screws 24 the spring pieces 25 and 26. To the spring piece 25 is attached one end of the electric lighting circuit and to the piece 26 is attached the other end of said circuit.

The adjusting and operation of my device is as follows: Say it is desired to burn the lights upon the circuit between the hours of seven and ten o'clock in the evening. A sufficient number of segments of the circular cammed rail 7 are attached to the face of the disk 4 by means of the screws 6 passing through the holes 5 to make an arc of rail extending between the divisions 7 and 10 on the face of the disk. The whole disk is then adjusted so that the time of day when the adjustment is made is directly under the end 11 of the arm 10. When the hour of seven arrives the roller 12 is contacted by the advancing inclined end 8 of the rail 7 and is forced up thereby. This depresses the end 18 of the arm 10 and forces the circuit closing piece 22 between the spring pieces 25 and 26 thereby closing the circuit and lighting the lights. When the hour ten has arrived the end of the rail 7 passes from beneath the roller 12 and the spring 17 draws the circuit closing piece 22 from between the spring pieces 25 and 26 breaking the circuit and extinguishing the lights.

Having described my invention it is evident that I provide an extremely simple device for automatically timing the continuance of physical or mechanical operations.

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

1. In a device of this nature, the combination of a clock mechanism, a disk attached to a hand shaft thereof, a segmented circular rail the segments of which are adapted to be attached to the face of said disk and a lever arm extending over and adapted to be actuated at right angles to the face of said disk by said segmented rail.

2. In a device of this nature, the combination of a clock mechanism, a disk attached to a hand shaft thereof, said disk being marked in equal divisions, a segmental rail the segments of which are adapted to be attached to the face of said disk at the desired divisions and a lever arm adapted to be actuated at right angles to the face of said disk by said rail.

3. In a device of this nature, the combination of a clock mechanism, a disk attached to a hand shaft thereof, segments of a circular rail adapted to be attached to the face

of said disk, a lever arm adapted to be actuated at right angles to the face of said disk by said segments and means for adjusting the latitude of oscillation of said lever arm.

4. In a device of this nature, the combination of a clock
5 mechanism, a disk attached to a hand shaft thereof, a segmented cammed rail the segments of which are adapted to be attached to said disk, a lever arm extending over the face of said disk and said cammed rail and a roller attached to one end of said lever adapted to roll up and

over said cam and said segments thereby actuating said lever in a direction at right angles to the face of said disk. 10

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

FRANK J. SLIPKA.

Witnesses:

E. M. PATTERSON,

REX L. T. ROODHOUSE.