W. C. CONKLIN.

FLASHER.

APPLICATION FILED JULY 2, 1917.

1,311,437.

Patented July 29, 1919.

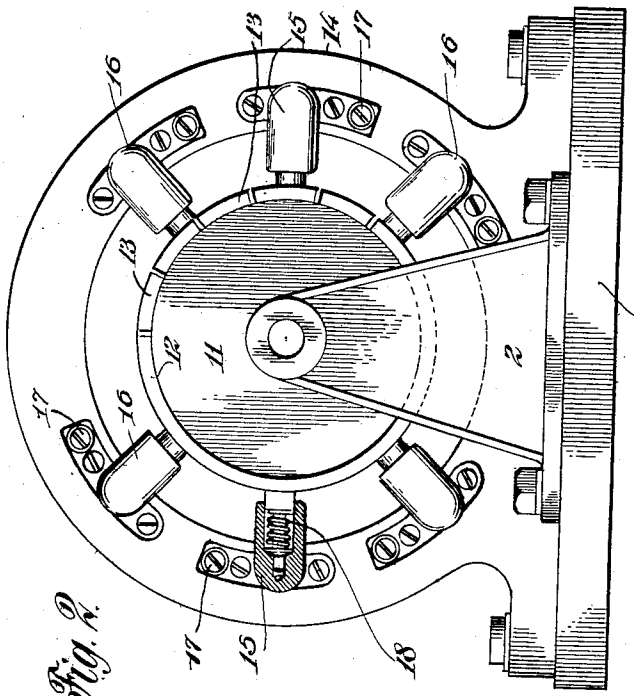


Fig. 2.

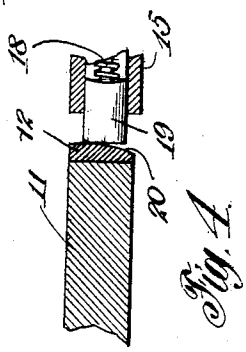


Fig. 4.

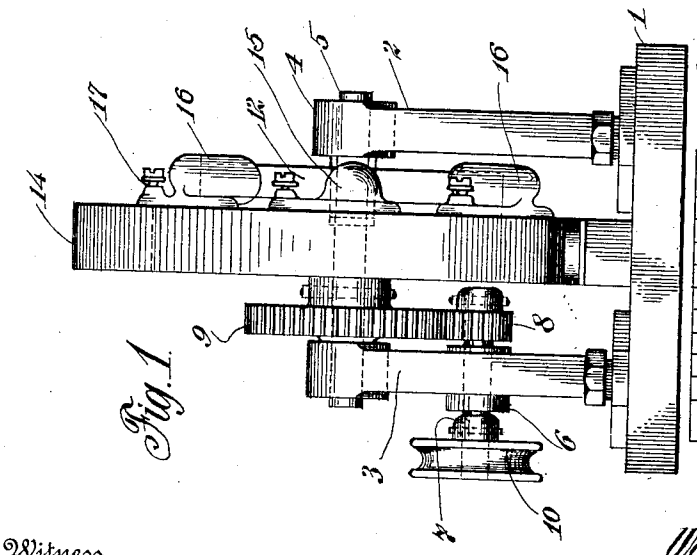


Fig. 1.

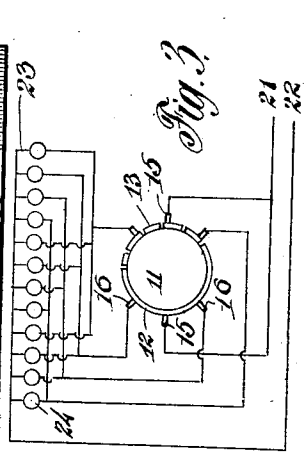


Fig. 3.

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FLASHER.

1,311,437. Specification of Letters Patent. Patented July 29, 1919.

Application filed July 2, 1917. Serial No. 178,173.

To all whom it may concern:

Be it known that I, WADE C. CONKLIN, a citizen of the United States of America, residing at Highland Park, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Flashers, of which the following is a specification, reference being had therein to the accompanying drawings.

In the operation of large electrical display signs and advertising novelties, the flashers or rotary electric switches employed for intermittently making and breaking electric circuits of the signs, produce such noise that it is the present practice to locate the flashers or switches on the roof of a building or at some remote point so that the noise will not inconvenience persons in the vicinity of the flashers or switches. Furthermore, the present type of flashers or switches have widely distributed contact members and long resilient contact arms, these elements being associated with a multiplicity of independent drums or rotors. Considerable sparking is incurred, adjustments are constantly necessary, and the devices occupy considerable space.

My invention aims to provide a flasher or electric switch that is comparatively noiseless in operation, sparkless, and meets and complies with the various building and electrical regulations.

The invention will be hereinafter specifically described and then claimed, and reference will now be had to the drawings, wherein:

Figure 1 is a side elevation of the flasher;

Fig. 2 is a front elevation of one of the brush holders thereof in section;

Fig. 3 is a diagrammatic view illustrating electrical wiring of the flasher in connection with a small sign, and

Fig. 4 is an enlarged detail sectional view illustrating relation between a rotor and brush.

In the drawing, the reference numeral 1 denotes a suitable base, and mounted on the base, in spaced relation, are A frames 2 and 3, having bearings 4 for a driven shaft 5.

The A frame 3 has a bearing 6 for a drive shaft 7 provided with a small gear wheel 8 meshing with a large gear wheel 9 on the shaft 5. The drive shaft 7 has a grooved pulley or power transmission wheel 10 that may be operated from an electric motor or other source of power (not shown). The gear wheels 8 and 9 constitute a train of reduction gears for reducing the speed of the shaft 5 relative to the speed of the shaft 7. Fixed on the shaft 5 is a rotor 11 preferably made of insulation material, as fiber. On the periphery of the rotor 11 are large and small segment contact members 12 and 13.

Fixed on the base 1 and surrounding the rotor 11 is a housing 14 which may also be made of fiber or other insulation material or may be made of metal provided with insulation where necessary.

Attached to the housing 14 are a plurality of radially disposed brush holders 15 and 16, the brush holders 15 being diametrically opposed. All of the brush holders have binding posts 17 and in said brush holders are coiled compression springs 18 holding cylindrical revoluble brushes 19 against the segment contact pieces or members 12 and 13 of the rotor 11. As shown in Fig. 4, the contact pieces or members 12 and 13 are beveled at one side, as at 20, so that said contact pieces or members will engage the brushes 19 adjacent an edge thereof. This arrangement causes said brushes to be revolved by the rotor, such rotation assisting in the elimination of the sparking.

Reference will be had to Fig. 3, showing feed lines 21 and 22, the latter being connected to a buss bar 23 in circuit with a plurality of incandescent lamps 24. The brush holders 15 are connected to the feed line 21, and the remaining brush holders are connected to the lamps 24. From this wiring, it will be noted that the series of lamps 24 are progressively illuminated and it is possible to arrange the lamps so that various novel electrical displays may be made.

It is thought that the operation and utility of the invention will be apparent without further description, and while in the drawing there is illustrated a preferred embodiment of my invention, it is to be understood that the structural elements are susceptible to such variations and modifications as fall within the scope of the appended claims.

What I claim is:—

1. In a flasher, a rotor, contact pieces carried by the periphery thereof and having beveled edges at one side of said rotor, stationary brush holders circumferentially of said rotor, rotatable brushes in said brush

holders engaging the contact pieces of said rotor, and caused to revolve about the axes of said holders by said contact pieces engaging flat ends of said rotatable brushes at one side of the axis of each brush, and means adapted to revolve said rotor.

2. In an electrical device, a commutator having bars or contact pieces provided with beveled edges at one side thereof, and rotary brushes normally engaging said bars or contact pieces and caused to revolve by said bars or contact pieces engaging flat ends of said rotatable brushes at one side of the axis of each brush.

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

WADE C. CONKLIN.

Witnesses:
KARL H. BUTLER,
ANNA M. DORR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."