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S. N. HOLMAN

2,439,974

COMMUTATOR

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Fig. 1.

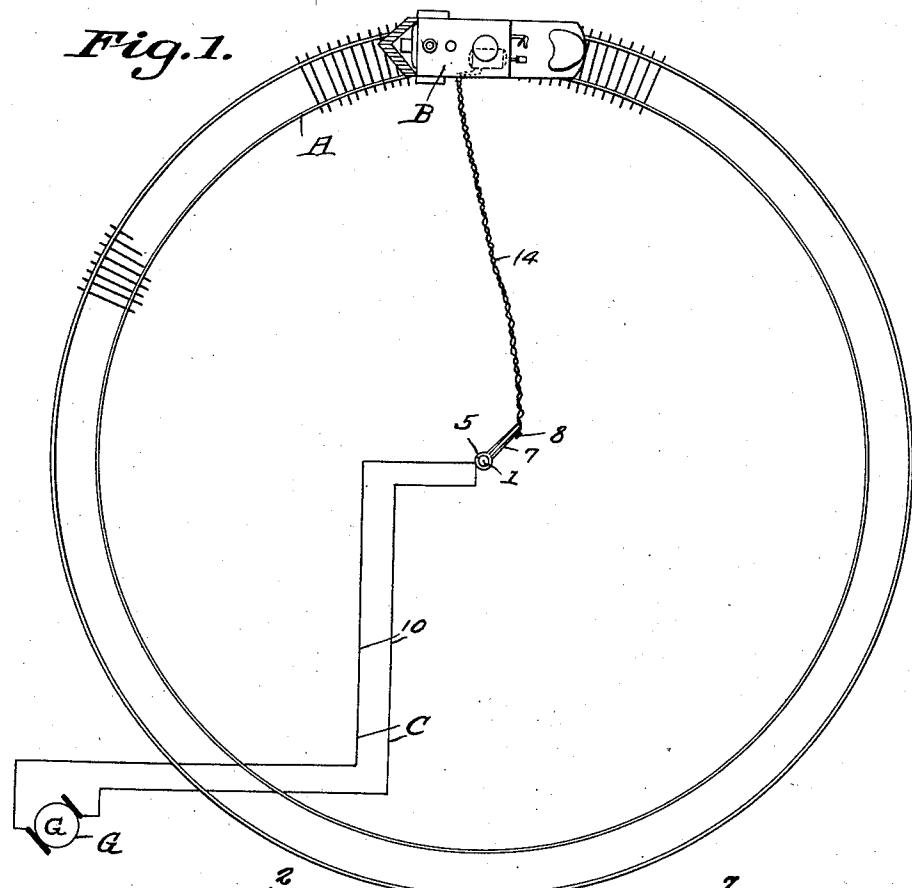
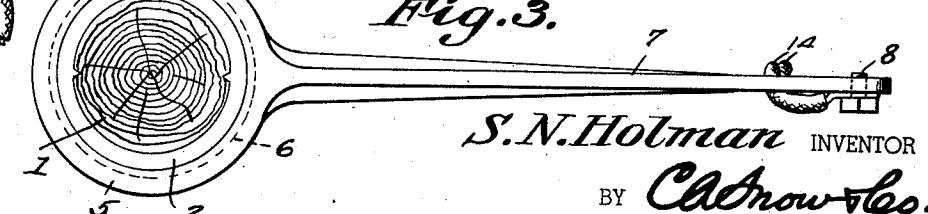


Fig. 2.



Fig. 3.



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## COMMUTATOR

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1 Claim. (Cl. 191—12)

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This invention relates to amusement rides and more specifically to an improved commutator for supplying current to an electrically driven amusement drive.

The primary object of this invention resides in the provision of an improved and novel commutator construction and the wired circuit therefor adapted to be centrally disposed within a circular track and trail a lead to a driven vehicle about said track.

Another object of this invention is the provision of an improved commutator construction of the character described which is of a durable and lasting construction and which may be quickly and easily erected and dismantled as desired with the conventional periodic moving of amusement rides.

Still a further object and advantage of this invention is the provision of a commutator of the nature set forth which is of an extremely simple and inexpensive design and construction.

Still further improvements and advantages of this invention will readily appear to those skilled in the art when the following description is read in the light of the accompanying drawings in which:

Fig. 1 is a plan view of the circuit and ride.

Fig. 2 is a partial vertical section of the commutator.

Fig. 3 is a top plan view of Fig. 2.

Referring now to the accompanying drawings which illustrate the preferred embodiment of this invention and in which like numerals indicate similar parts throughout, A designates a circular two rail track and B the driven car of a train or the like adapted to travel said track and provided with an electrical driving motor of a single or three phase type equipped with an operating switch therefor within the car B or at an external point in the circuit.

An electrical circuit C originating at a generator G external the ride area is carried in an insulated condition, such as underground, to a central position within the track area.

A vertical post 1 of wood or other like insulated material is erected centrally within the area and acts to support the commutator arrangement about to be described.

A pair of circular collars 2 having an enlarged flange 3 about their lower ends are telescoped downwardly, one above the other over an insulated circular bearing 4 secured about the upper end of the post 1 and the flanged collars are rigidly secured in place.

Each of the collars 2 is provided with a cir-

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cular ring 5 rotatably seated on the flange 3 thereof and having oil groove 6 circumferentially thereto and each of said rings is provided with an integrally formed elongated arm 7 extending radially therefrom.

The outer ends of each of the arms 7 are provided with a terminal post 8 and an aperture 9 closely positioned relative thereto.

The two wires 10 of the generator circuit C are carried upwardly adjacent the post 1 and one of each of the wires are secured in electrical contact with one of each of the flanged collars as at 11 and 12 in such a connection as to permit the free rotation of both of said arms about the post 1 with the supporting rings 5 thereof maintaining a bearing contact with said collar flange at all times and allowing the flow of current to reach the terminal posts 8.

A pair of elongated leads 13 are tied one to each 20 of said terminal posts and passed through the adjacent aperture, which tends to relieve some of the strain at the post, where the two leads are joined and intermeshed, braided, or wrapped to form an elongated rope 14 which extends in suspension from said arms to the powered car B and to where it is tied to the fields of the driving motor.

Thus it may be seen that a continuous supply of current is provided for the driving motor of the car as it travels about the circular track and as the arms of the commutator move with the travel of the car and transmit a constant current therethrough.

It may then be readily seen that an improved 35 and economical commutator has been provided for an improved amusement ride of the nature set forth.

Having thus described and explained this invention and with full belief that modifications in 40 size, materials used conductive and insulated, and general characteristics would not constitute a departure from the spirit of this invention what I desire to claim in Letters Patent is:

A circular amusement ride electrical drive commutator, comprising a vertical insulated support centrally located within the circular amusement ride, a pair of superimposed circular metal collars secured to the vertical support and insulated from each other, wires providing an electrical circuit 50 between a source of electricity supply and the collars, enlarged flanges formed at the lower ends of the metal collars, laterally extended metal arms having metal ring members fitted over the metal collars, and resting on the enlarged flanges, terminal posts carried at the free ends of the arms,

a two-wire circuit connected to the terminal posts, whereby rotation of the wires and metal arms with the amusement ride is permitted, in the manner and for the purpose described.

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