Aug. 15, 1933. F. F. SMITH 1,922,983

MERRY-GO-ROUND

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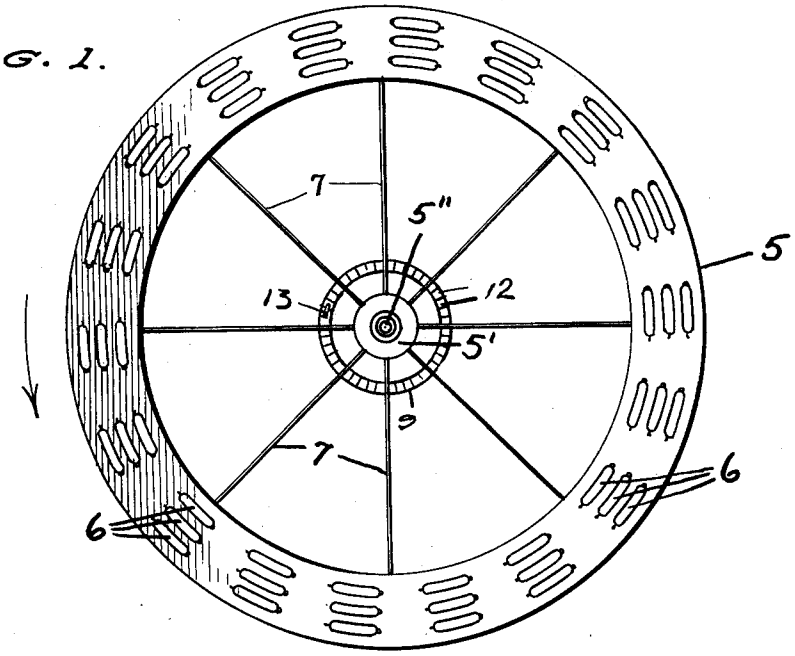
FIG. 1.



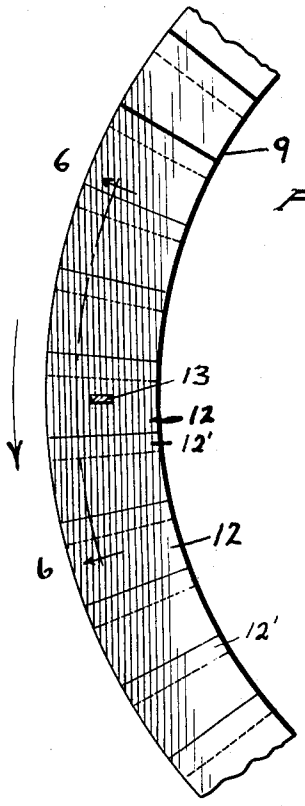


FIG. 2.

FIG. 3.

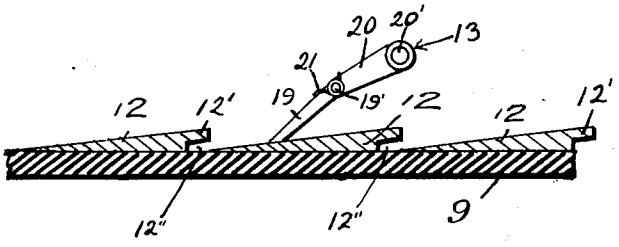


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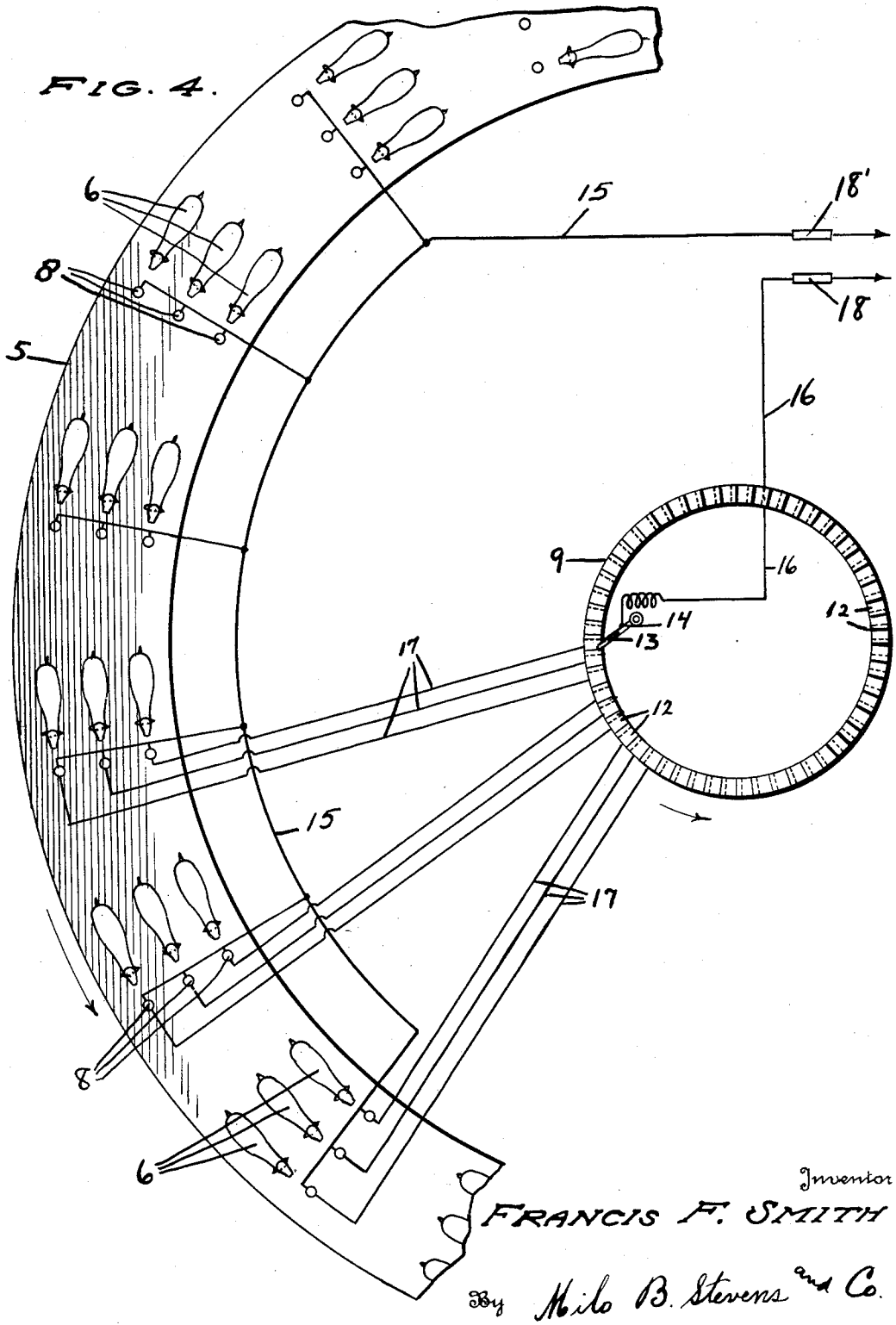
FIG. 4.



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MERRY-GO-ROUND

Francis F. Smith, Old Orchard Beach, Maine

Application September 10, 1931
Serial No. 562,161

12 Claims. (Cl. 272—28)

My invention relates to carousels or "merry-go-rounds".

An important object of my invention is to provide a carousel, or the like, with a system of signalling for entitling some one passenger to an additional ride free of charge.

Another object is to provide a carousel, merry-go-round, or roundabouts with a system of successive electrical signalling.

A further object is to provide a system of lights associated with the seats of a carousel and which are automatically lighted or controlled in a predetermined sequence.

Another object is to provide an electrical attachment for a carousel which may be easily installed, and which provides a source of much amusement.

A still further object is to provide an attachment which is interesting and entertaining and which is automatic in its operation.

In the accompanying drawings forming a part of this application and in which like numerals are employed to designate like parts in all views,

Figure 1 is a top plan view of a carousel embodying my invention;

Figure 2 is a top fragmentary view of the revolving insulating and contact ring showing the electrical contact member;

Figure 3 is a view taken on the line 6—6 of Figure 2 and shows the copper contact segments disposed on the insulating ring and the hinged electrical contact member; and,

Figure 4 is a fragmentary view of the electrical circuit.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates a carousel or "merry-go-round" having a revolving hub 5' and a shaft or center pole 5''. Provided further are the usual seats 6 and the customary radial arms or sweeps 7. Adapted to be suitably arranged at or over the seats 6 are electric light bulbs or lamps 8. Other suitable signalling means may be employed, if desirable.

Centrally disposed around the shaft 5' and secured to the carousel 5, by any desired means, is an insulating and contact ring 9. The ring 9 may be made of any suitable insulating material and secured thereon are spaced insulated copper segments 12. In Figure 3 it will be noted that each segment 12 converges and is provided with a lip 12' which overlies a recess, or pocket, 12'' formed by the ring 9 and the lip 12'. The use of this pocket will be hereinafter referred to.

A stationary contact member or shoe 13 is provided having a source of electrical current connected thereto as indicated at 14. As the carousel revolves so does the ring 9 and the stationary contact member 13 slides over the copper segments 12 arranged on the ring 9.

By referring to Figure 3 it will be noted that the contact member 13 comprises two hinged joints 19 and 20 hinged as at 19' and 20'. 21 denotes a spring which is secured to the hinge 19' and bears against the members 19 and 20 for holding the members in their normal position. The purpose of this hinged contact shoe is that should the carousel happen to run into reverse the member 19 will slide backwardly into the pocket 12'' which is adapted to cause the breaking of the tension of the spring 21 upon the members 19 and 20 allowing the doubling up of contact member 19 so as to slide backwardly over the contact segments 12. When the carousel resumes its forward run the hinged members are adjusted accordingly and return to their normal position as shown in Figure 3.

Numerals 15 and 16 represent the main lines of any electrical current, the line 15 running to the bulbs or lamps 8, while the line 16 runs to the contact member 13. Conductor wires 17 lead from the copper segments 12, and to which the wires 17 are attached, to the bulbs or lamps 8. These wires may run from segments 12 to the bulbs 8 in any convenient manner, such as along the sweep arms, or under the flooring of the carousel. It will be seen, therefore, that a completed circuit is made each time the sliding contact of the stationary member 13 comes into contact with each copper segment 12 of the ring 9, and causes the successive lighting of each bulb or lamp 8.

Fuses 18 and 18' are located in the main lines, the use of the same being well known in the art.

In the operation of my device the carousel carrying the insulating ring provided with the copper segments revolves around the shaft. A source of electrical current is now turned on supplying the main lines, one line leading to the electric bulbs and the other line to the stationary contact member. As the stationary contact member slides along the revolving ring a circuit is completed to some one lamp each time the contact member comes into contact with each copper segment since conductor wires run from the copper segments to the electric bulbs or lamps. The bulbs already have a line of current, and the current carried by the conductor wires from the ring and contact member, of course, completes the circuit and causes the suc-

cessive and automatic lighting of the lamps. When the carousel comes to a stop a lamp on some one seat will continue to burn and the rider of such a seat is entitled to an additional ride free of charge.

As will be apparent a highly amusing and interesting device is provided which is automatic and simple in its operation and capable of much entertainment.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred embodiment of the same and that various changes in shape, size and arrangement of parts may be resorted to without departing from the spirit of my invention and the scope of the subjoined claims.

Having thus described my invention what I claim is:

1. A carousel provided with circumferentially spaced signal means and means whereby said signals are automatically and successively operated in predetermined sequence by the revolving of the carousel.

2. A carousel, seats arranged on said carousel and means operated by the revolving of the carousel for signalling in predetermined sequence the rider of each seat.

3. A carousel, seats arranged on said carousel, signalling means, one associated with each seat, and means whereby seat signals are given by the revolving of the carousel.

4. A carousel, seats arranged on said carousel, electric signalling means, one associated with each seat, and means whereby said signalling means are operated in predetermined sequence by the revolving of the carousel.

5. A carousel, seats arranged on said carousel, an electric bulb disposed adjacent each of said seats and means for lighting said bulbs in predetermined sequence by the revolving of the carousel.

6. A carousel, seats thereon, individual electrical signal means located adjacent each of the seats and provided with a source of electrical current, a shaft, an insulating ring disposed around said shaft and connected to the carousel to revolve therewith, insulated copper segments arranged on said ring, a contact member carrying a current and positioned to slidably bear against said ring, conductor wires for carrying the electrical current from the copper segments to the electric signalling means whereby a circuit is completed and signalling of the signals is had by the revolving of the carousel.

7. A roundabout, seats arranged thereon, individual electrical signal means located adjacent each of the seats, means for revolving said roundabout and means for making and breaking the circuit to the signal means by the rotation of the roundabout.

8. A carousel, seats arranged on said carousel, a signal light disposed adjacent each of said seats, means for rotating said carousel, means for causing said signal lights to burn in predetermined sequence upon the rotation of the carousel, said last mentioned means causing some one signal light to burn when the carousel comes to a stop.

9. In a device of the character described, a shaft, a carousel mounted to revolve around said shaft, electrical circuit making and breaking means disposed around said shaft and connected to the carousel to revolve therewith, seats arranged on said carousel, individual electric signalling means located adjacent each of the seats, and operatively connected to said circuit making and breaking means whereby said signalling means are operable in predetermined sequence by the revolving of the carousel.

10. The structure of claim 9, and means whereby but one signal may be given when the carousel comes to a standstill.

11. In combination with a carousel rotatably mounted on a shaft and having seats thereon, an insulating ring disposed around said shaft and mounted to revolve with the carousel, insulated electrical contacts arranged on said ring in spaced relationship, a current carrying sliding contact member positioned to bear against said contacts on said ring, an electric light located adjacent each of said seats, each of said lights being connected to one of the contacts on said ring to complete a circuit and successively light each light as the carousel is rotated.

12. In combination with a carousel rotatably mounted on a shaft and having seats thereon, an insulating ring disposed around said shaft and mounted to revolve with the carousel, insulated electrical contacts arranged on said ring in spaced relationship, a current carrying sliding contact member positioned to bear against said contacts on said ring, said sliding contact member being provided with a hinge at a point midway of its length to prevent breakage of said contact when the carousel is revolved in the opposite direction, an electric light located adjacent each of said seats, each of said lights being connected to one of the contacts on said ring to complete a circuit and successively light each light as the carousel is rotated.

FRANCIS F. SMITH.