Oct. 28, 1924. 1,512,957

H. G. TRAVER

AMUSEMENT DEVICE

Filed Feb. 9, 1922

Fig. 1.

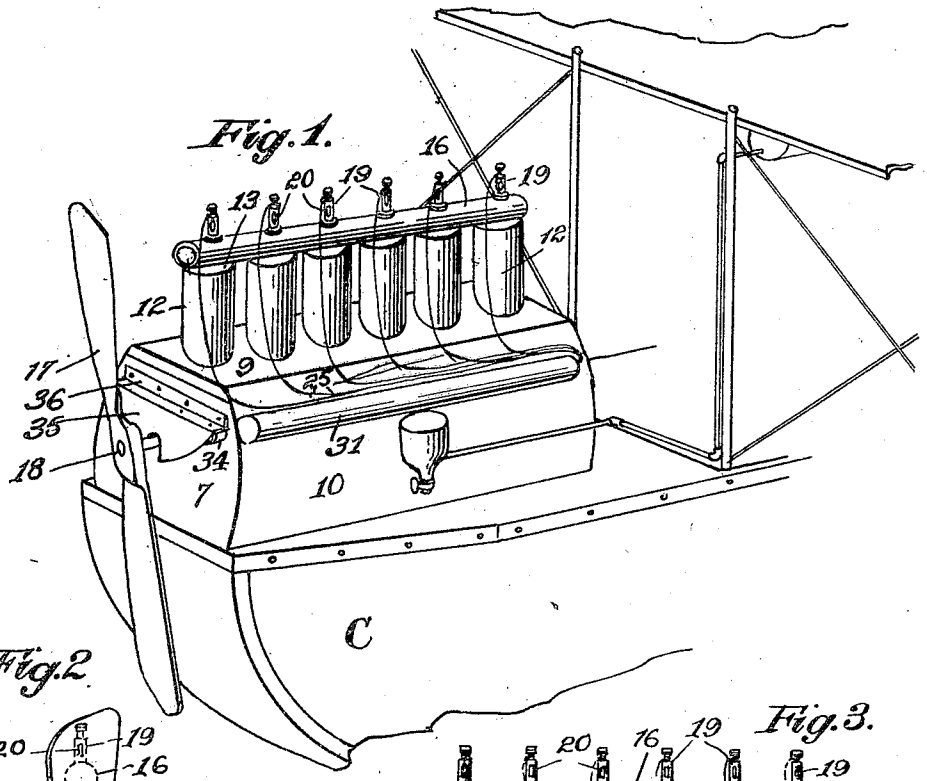

Fig. 2.

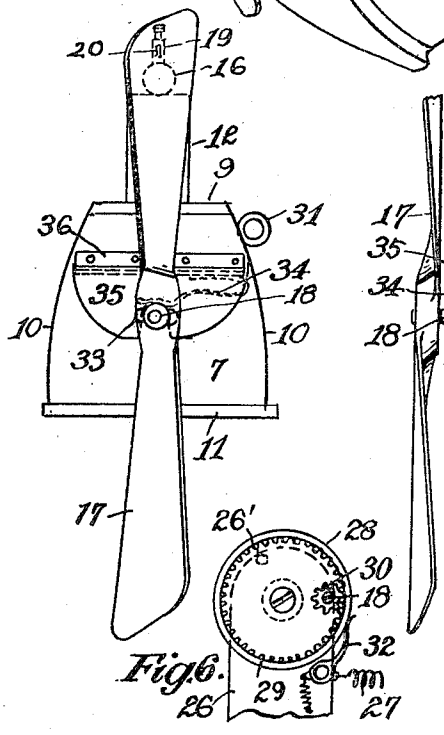

Fig. 3.

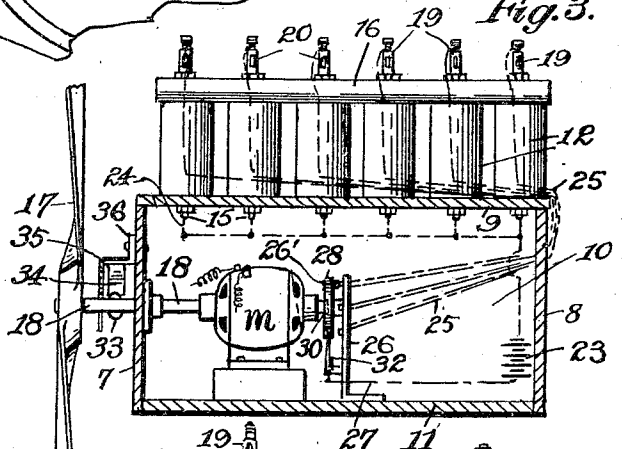

Fig. 4.

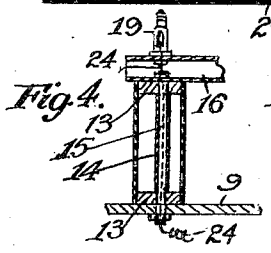

Fig. 5.

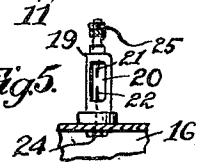

Fig. 6.

Inventor

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By his Attorney John D. Seifert

Patented Oct. 28, 1924. 1,512,957

UNITED STATES PATENT OFFICE.

HARRY G. TRAVER, OF BEAVER FALLS, PENNSYLVANIA.

AMUSEMENT DEVICE.

Application filed February 9, 1922. Serial No. 535,285.

To all whom it may concern:

Be it known that I, HARRY G. TRAVER, a citizen of the United States, and a resident of Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Amusement Devices, of which the following is a specification.

This invention relates to amusement apparatus which are known as seaplane or aeroplane swings, such as is disclosed in my co-pending application, Serial No. 356,881, which matured into Patent No. 1,473,980, dated Nov. 13, 1923, in which passenger carrying cars constructed and arranged to simulate hydroplanes are suspended from arms radiating from and supported by a shaft supported to rotate on a vertical axis so that the cars will be caused to move in a circular path, and it is the object of the present invention to provide means to be utilized in connection with the passenger carrying cars constructed and arranged to simulate the power plant or propelling means of an aeroplane or hydroplane whereby passengers, as well as lookers-on, will be impressed with the idea that the passenger carrying cars are equipped with and operated by a bona fide power plant, such as an internal combustion or gasolene engine and propeller, and to provide apparatus of this character which is novel and cheap in construction.

It is a further object of the invention to provide in connection with apparatus of this character means to create a sound to simulate the sound of an operating gasolene engine, and to also provide means to create visible electric sparks to give the impression that the same is equipped with the usual electric ignition means of an internal combustion engine.

In carrying out the invention I provide a casing having cylindrical members constructed and arranged to simulate the crank case and cylinders of a multiple cylinder gasolene engine, the casing being arranged to carry an electric motor therein and adapted to be mounted upon the forward end of a passenger carrying car, or to enclose a motor mounted upon the car, with the shaft of the motor extended through the end of the casing and having a propeller fixed thereon. The respective cylindrical members have mounted thereon sparking means to simulate electric ignition plugs, said plugs being constructed and arranged to create a spark and expose the same for visual observation, said plugs being connected with a source of electricity and arranged in the connection thereof with electric contact making and breaking means whereby to successively open and close the circuit for the respective plugs.

In the drawing accompanying and forming a part of this specification, Figure 1 is a perspective view showing an embodiment of the present invention mounted upon the forward end of a passenger carrying car used in connection with aeroplane swings, only so much of the car being shown as is essential to an understanding of the invention.

Figure 2 is an elevational view looking at the front of Figure 1.

Figure 3 is a longitudinal sectional view.

Figure 4 is a sectional side elevation to show the arrangement of connecting the cylindrical members to the casing.

Figure 5 is a detail view to show the arrangement of the sparking means on an enlarged scale; and

Figure 6 is an end elevation to show the means to successively make and break the circuit for the respective sparking devices.

Similar characters of reference designate like parts throughout the different views of the drawing.

In the embodiment of the invention shown in the drawing, I provide a casing consisting of end members 7 and 8, a top member 9 and sides 10, and the casing may also have a bottom member 11, with cylindrical members 12 connected to the casing, preferably to the top and arranged in alinement, the casing and cylinders being constructed and arranged to simulate the crank case and cylinders of a multiple cylinder gasolene engine. To secure the cylindrical members to the casing a head 13 (Figure 4) is arranged in each end of the cylinders and maintained at the ends of the cylinders in spaced relation by a sleeve 14, the cylinders being secured to the casing by tie members 15 passing through a perforation in the heads 13, the sleeve 14, casing wall and a tubular member 16 extending over the top of the cylinders with nuts threaded on to the opposite ends of the tie members. These tie members 15 are preferably tubular for a purpose to be hereinafter described.

The casing with the connected cylinders

is adapted to be mounted upon the passenger carrying cars, preferably the forward end of the body, shown in a general way at C, constructed and arranged to simulate the fuselage of a hydroplane. An electric motor M is mounted within the casing, or the same may be mounted upon the body of the car and the casing arranged to serve as an enclosure for the same. A propeller 17 is fixed to the end of the shaft 18 of the motor extended through the end of the casing to revolve the propeller. It will be obvious that the foregoing described structure will give passengers and others the impression that the same is actually the power plant and propelling means of an aeroplane.

To further detract attention from the fact that the casing and cylinders is not a genuine gasolene engine sparking plugs 19 are mounted upon the tubular member 16 in alinement with the cylinder 12, said plugs being arranged with an opening 20 transversely therethrough and carrying a pair of electrodes with the terminals located within the opening 20 in spaced relation to each other or with a gap between the same whereby the spark may be visually observed, as clearly shown in Figure 5. The plugs are connected in circuit with a source of electricity which may be a suitable battery as shown at 23, with a conductor 24 leading from the battery connected in series with one electrode of the respective plugs. The other electrodes of the plugs have conductors leading therefrom, as shown at 25, connected to terminal contacts in an insulator member 26 with which a movable contact member 26′ connected in circuit with the battery by a conductor 27 is adapted to co-operate to successively open and close the circuits of the plugs and thereby successively create a spark at the respective plugs.

The make and break contact 26′ is carried by a member 28 rotatably carried on a stud fixed in the insulator member 26 and is arranged with internal gear teeth 29 to mesh with a pinion 30 fixed to the shaft of the motor M to drive the contact maker from the motor at a reduced speed relative to the speed of the motor. The electrical connection of the one electrode of the plugs with the conductor leading from the battery is through the tubular tie members 15. The conductors 25 from the plugs may be directed through a tubular member 31 exterior of the casing, such tubular member being provided to simulate the exhaust or intake manifold usually utilized in gasolene engines. The contact carrier 28 may be made of conducting material and to insulate the same from the motor the pinion 30 may be made of non-conducting material, or the contact maker 26′ may be connected to a band of conducting material surrounding and insulated from the carrier and to connect the same with the source of electricity a rubbing contact 32 is connected to the conductor 27, as shown in Figure 6.

To further impress passengers of the genuineness of the apparatus means is provided to emit a sound similar to the noise of the operation of an engine, and for this purpose a toothed wheel 33 is fixed on the propeller shaft to rotate therewith, and as the said wheel rotates yielding means in the form of a spring detent 34 fixed to the casing is caused to ride over the teeth of the wheel, and to conceal the toothed wheel and detent a shield 35 mounted on a bracket 36 secured to the end of the casing is arranged to extend over the toothed wheel and detent.

Having thus described my invention I claim:

1. Apparatus for use in connection with passenger carrying cars of aeroplane swings to simulate the power plant of an aeroplane, comprising a casing, cylindrical members connected to the casing, and plugs mounted in superposed relation to each cylinder, each plug having a pair of electrodes connected in circuit with a source of electricity with the terminals thereof in spaced relation and the plugs arranged to expose the terminals for visual observation.

2. Apparatus for use in connection with passenger carrying cars of aeroplane swings to simulate the power plant of an aeroplane, comprising a casing, cylindrical members mounted upon the casing, plugs mounted in superposed relation to each cylindrical member arranged with a pair of electrodes connected in circuit with a source of electricity with the terminals thereof in spaced relation and the plugs arranged to expose the terminals for visual observation, and means operative for successively opening and closing the circuit for the respective plugs for the purpose specified.

3. The combination with passenger carrying cars of aeroplane swings, of apparatus to simulate the power plant of an aeroplane, comprising a casing mounted upon the forward end of the car, cylinders mounted upon the casing in alined arrangement, plugs mounted in superposed relation to the cylinders, each plug having a pair of electrodes with the terminals in spaced relation and the plug arranged for visual observation of said electrode terminals, an electric current conductor connected to a source of electricity and in series with an electrode of the respective plugs, electric conductors connected to the other electrode of the respective plugs and arranged with contact terminals, a movable contact connected in circuit with the source of electricity and means to successively move said movable contact into and out of contact with the contact terminals of the electrodes connected in circuit with the

one electrode of the plugs for the purpose specified.

4. The combination with passenger carrying cars of aeroplane swings, of a casing having cylindrical members connected thereto mounted upon the forward end of the car, plugs mounted upon the cylindrical members including a pair of electrodes connected with a source of electricity and having terminals arranged in spaced relation and exposed for visual observation, and means arranged in the casing and in the circuit of the plugs with the source of electricity operative for successively connecting the plugs into and cutting the same out of circuit with the source of electricity for the purpose specified.

5. In aeroplane swings, the combination with a passenger carrying car, of means mounted upon the car comprising a casing and cylinders to simulate a gasolene engine, a propeller arranged at the end of said casing, a toothed member rotatable with the propeller, and a yielding member to cooperate with said toothed member to ride over the teeth thereof as the propeller is rotated for the purpose specified.

6. An imitation motor for aeroplane swings, comprising a casing and connected cylindrical members constructed and arranged to simulate the crank case and cylinders of a gasolene engine, a propeller rotatably carried at one end of the casing, a toothed wheel rotatable with the propeller, and a spring detent to co-operate with the teeth of said wheel as the propeller is revolved for the purpose specified.

7. The combination with aeroplane swings, of apparatus to simulate the power plant of an aeroplane, comprising a casing and cylindrical members connected thereto, an electric motor in the casing having the shaft thereof extended through one end of the casing, and a propeller mounted on the extended motor shaft, an electric sparking plug mounted upon each cylinder having electrodes with the terminals in spaced relation and the plugs arranged for visual observation of the terminals of the electrodes; a source of electricity in circuit with said plugs including a make and break contact operative from the motor to successively close and open the circuit for the respective plugs for the purpose specified.

Signed at Beaver Falls, in the county of Beaver, and State of Pennsylvania, this sixth day of February, 1922.

HARRY G. TRAVER.