Dec. 27, 1927. 1,653,921

J. MULLEN, JR

AMUSEMENT DEVICE

Filed Nov. 20, 1925 4 Sheets-Sheet 1

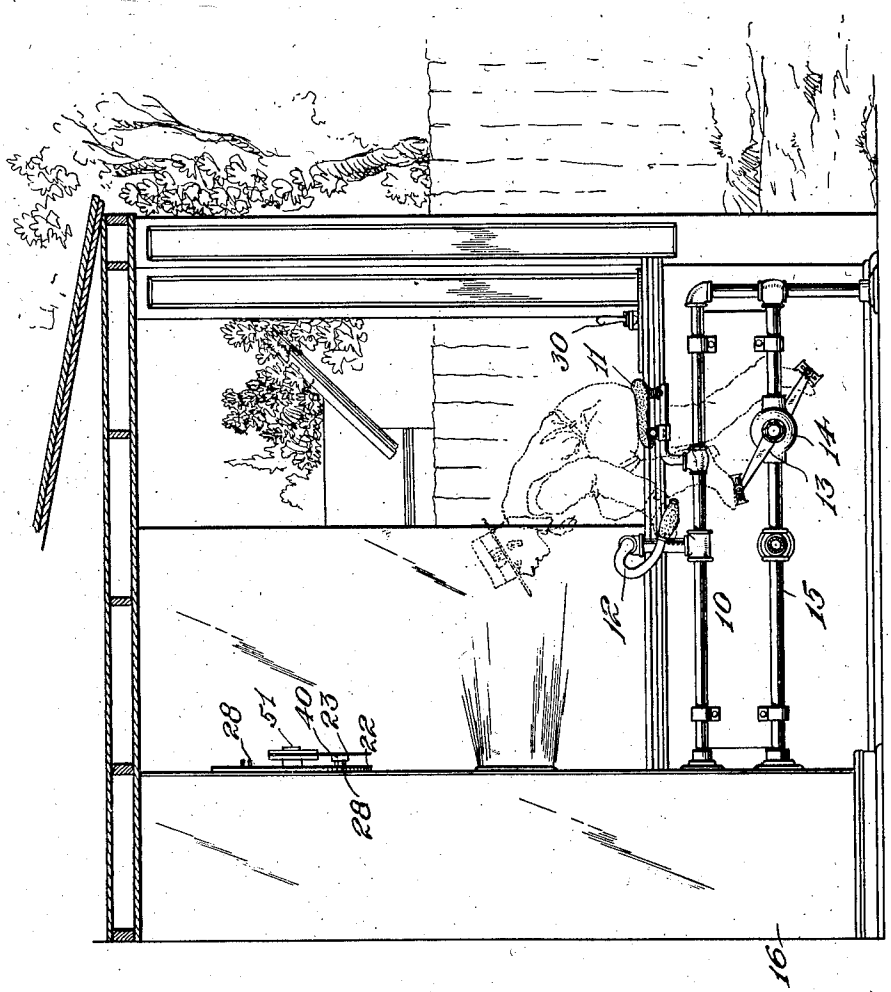


Fig. 1

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AMUSEMENT DEVICE

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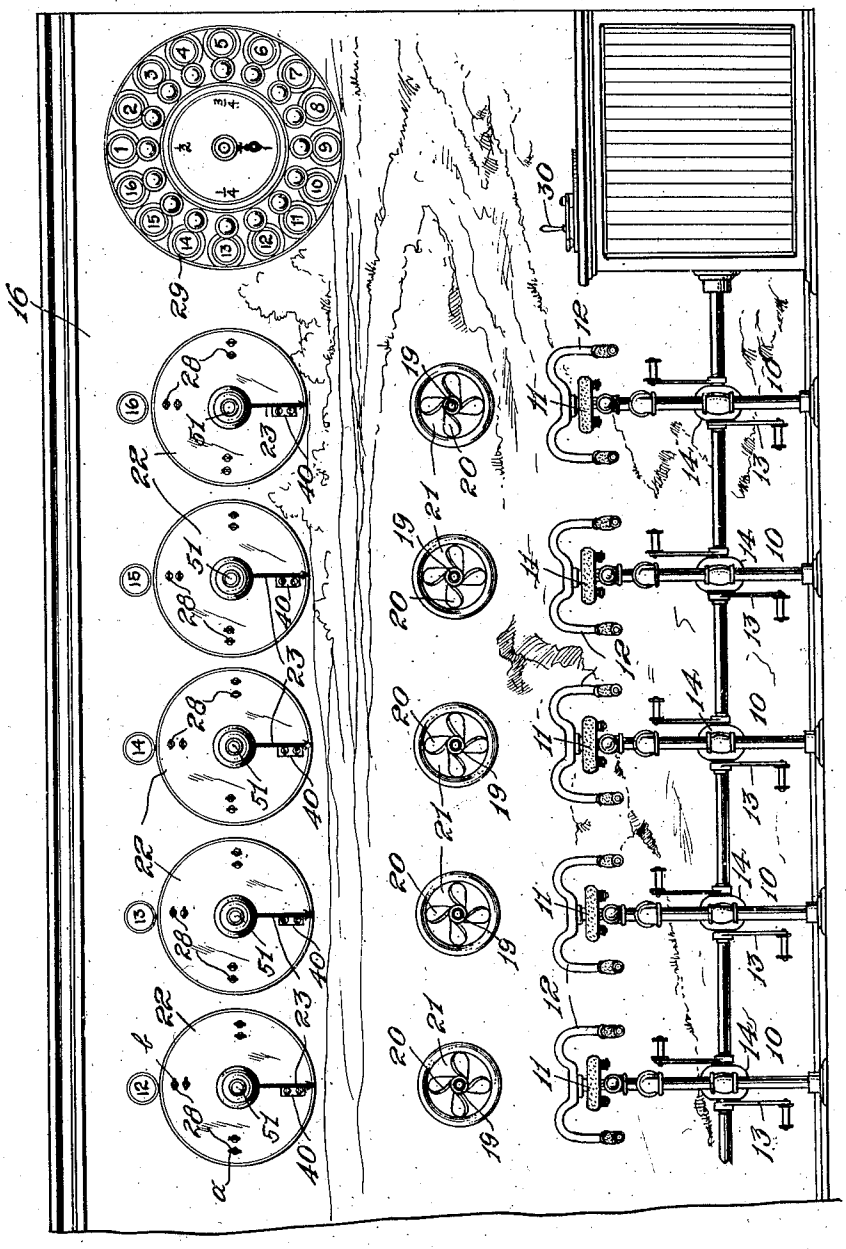


Fig. 2.

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AMUSEMENT DEVICE

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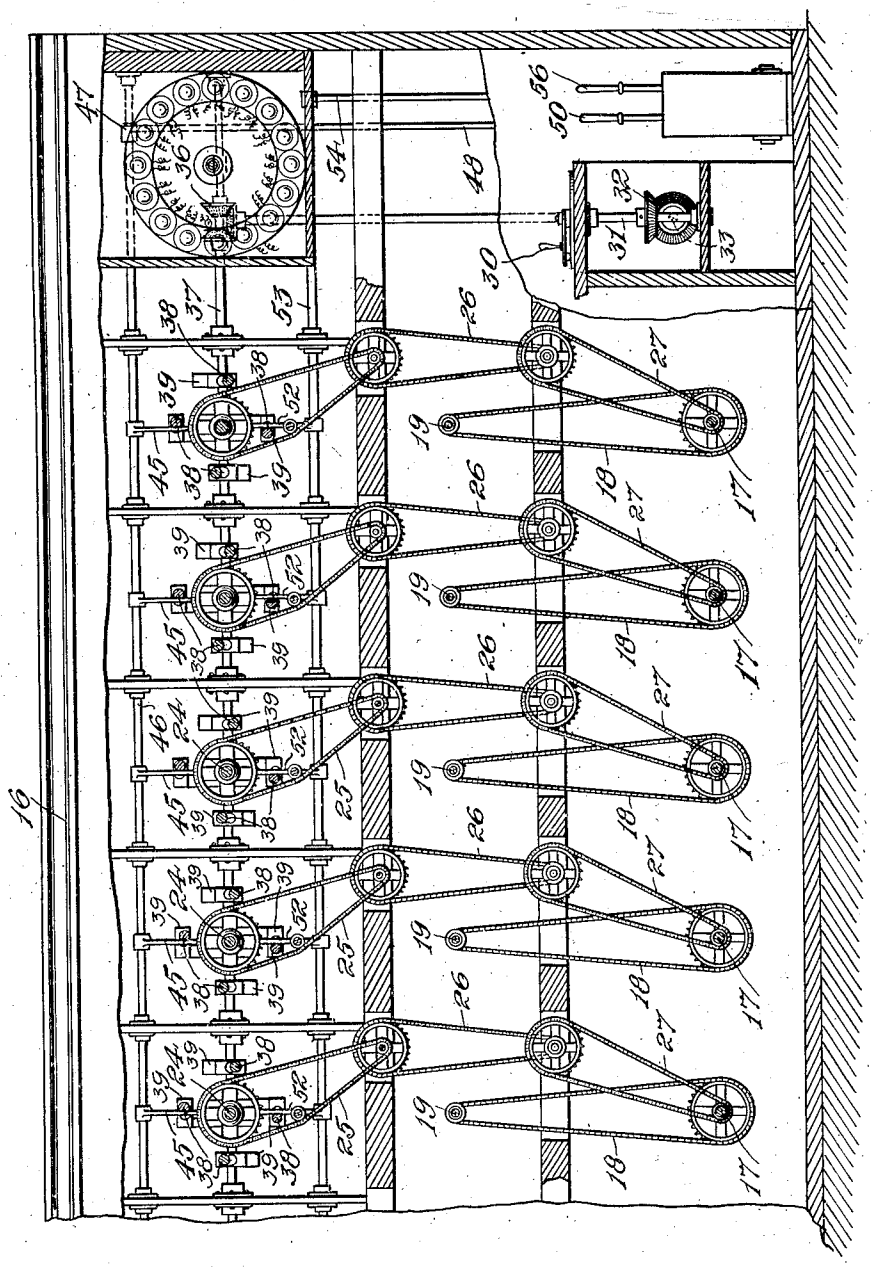


Fig. 3

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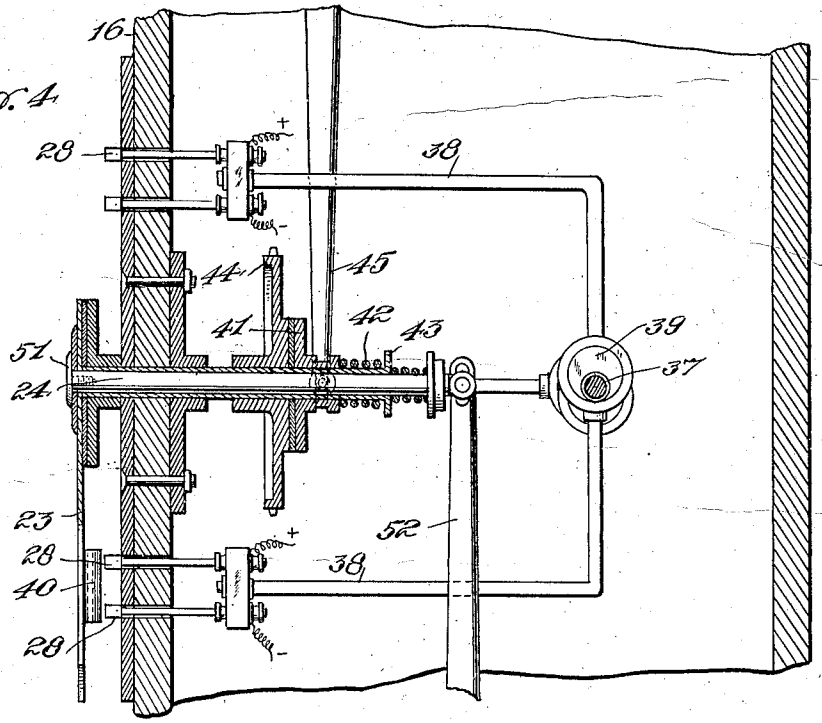
Dec. 27, 1927. 1,653,921

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AMUSEMENT DEVICE

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Fig. 4.



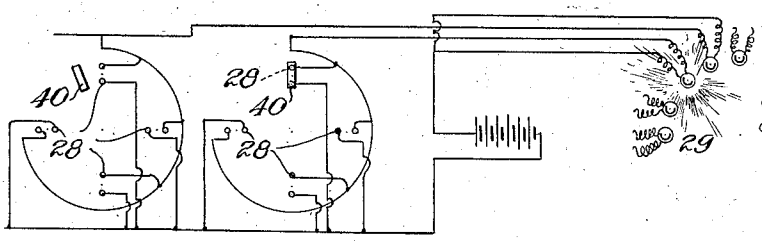


Fig. 6

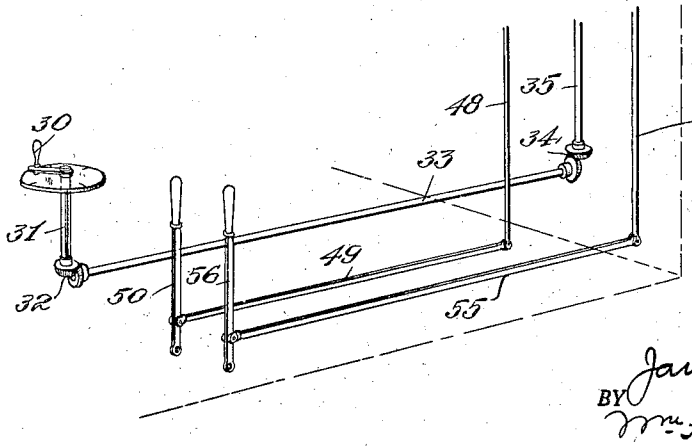


Fig. 5

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Patented Dec. 27, 1927. 1,653,921

UNITED STATES PATENT OFFICE.

JAMES MULLEN, JR., OF NEWARK, NEW JERSEY.

AMUSEMENT DEVICE.

Application filed November 20, 1925. Serial No. 70,296.

This invention relates to an amusement device that is adapted for manual operation and I have illustrated it in this specification as consisting of motors resembling bicycles which are fixed in position, the motors being preferably arranged in series so that persons manipulating them are in competition and they are provided with means for registering the winner on a suitable device.

The mechanism is preferably provided with a means common to all the indicating devices to fix the extent to which they must be operated to have one of them be the winner.

The invention is also designed to provide a registering means so that a person operating the device will know when the riders or contestants have finished the race because the winner dial is indicated on the registering mechanism.

Another feature of the invention is a connection between the motor and the indicator which is disposed so that at the completion of the race the hand or pointer of each indicator is released and will drop by gravity to its lowermost or zero point.

The invention is also designed to provide a resistance means which is in the form of a fan, the blades of which are arranged at a slight pitch so that the proper resistance will be provided and as the speed increases the motor becomes harder to operate, the fan thus acting more as a resistance medium than as a blowing device for directing air on the operator or rider.

The invention is illustrated in the accompanying drawing in which Figure 1 illustrates a side view of the device made according to my invention with the housing or bottom shown partly in section. Figure 2 is a face view of the device illustrated in Figure 1, this figure being broken away to indicate a few of what might be a long series or motors. Figure 3 is a view similar to Figure 2 but with the front or facing of the apparatus removed. Figure 4 is a section showing in detail one of the dials and its pointer and a means for connecting and disconnecting the pointer and also a means for selectively projecting contacts from the dial face. Figure 5 is a perspective view of the levers and other means for regulating the device and which are adapted to be used by a person conducting the apparatus and Figure 6 is a view of the circuits that may be used in actuating the registering signal from the various indicators.

The device consists of a set of motors which are adaptable for manual operation and I have illustrated in the drawings a series of motors resembling bicycles and comprising frames 10 preferably made of piping and supporting the seat 11 and the handle 12 and having the pedals 13 which operate gears in the housing 14, the housing in each case being preferably mounted on the lower pipe 15 of the frame, each shaft projecting into the casing or housing 16, these shafts 17 being illustrated particularly in Figure 3 and acting co-operate through the chain and sprocket connection 18 with the shafts 19, each one of which carries a fan 20 in an opening 21 in the front of the housing 16, the blades of the fan being arranged at a slight pitch so that there is a maximum resistance to their rotation, this providing the necessary resistance to the rider particularly as the speed increases.

Above each rider is an indicator and the indicators I show comprise the dials 22 and the pointers 23, the pointers each being mounted on a shaft 24 which is connected by chain and sprocket connections 25, 26 and 27 with the shaft 17 of each motor and, as will be seen from Figure 3, the necessary reduction of speed can be made through the ratio of sprockets so that the speed assumed to be travelled by a rider will be indicated on the dial.

Each of the indicators is provided with a set of contacts 28 which, in the form shown, are placed 90° apart to indicate, for instance, a quarter-mile, a half-mile, three-quarters mile and one mile. If a quarter mile is to be the distance travelled, the operator can project the contact shown at *a* which would indicate the quarter mile and if it was to be a half-mile, the contact shown at *b* would be projected, and so on, the pointer, when it arrives at the contacts projected, completing the circuit and causing the lighting of the signal or registering bulb at 29, these being shown as arranged in a circle.

To project all the contacts at the same time on all the dials, the mechanism operated by the person in charge of the device is used and one form is illustrated in the drawing, being operated from the handle 30, which handle rotates the shaft 31, and the gears 32, the shaft 33, the gears 34 and the

shaft 35 are arranged usually in a concealed position, the shaft 35 being connected by gears 36 with the shaft 37.

The shaft 37 passes behind the dials within the frame as will be seen particularly from Figure 4 and the respective contacts 28 are mounted on the ends of arms 38, each of which is connected by an eccentric 39, one eccentric being arranged for each arm 38 so that as each set of contacts is projected, all the others are retreated out of the path of the means such as the connecting bar 40 on the pointer 23 so that when the pointer arrives at the exposed contacts the particular circuit in which those contacts are placed is completed and the proper indication is made on the signal such as the bulbs 29. Of course, the first contact will show and will be apparent to the operator and all the contestants.

It is desirable, however, as soon as the winner has been indicated on the register 29, that all the connections from the motors to the dials be broken temporarily to prevent any further movement of the losers. I do this by means of a clutch 41 which is slidable against the spring 42 on the sleeve 43, the clutch being sprung back away from the sprocket 44 which is the sprocket that is operated by the chain 25. The clutch is arranged in each case on the end of an arm 45 which are all moved in turn from a bar 46 having an arm 47 actuated by a rod 48 which in turn is actuated through a rod 49 and a lever 50 by the operator.

After the device has been stopped the pointers 23 are all returned to zero by gravity, being released by pushing forward on the shafts 24 and thereby pushing the head 51 out far enough to permit a free rotation of the pointers 23 and they drop down to the position shown in Figure 2. All the pointers do this at the same time because all the shafts are operated at the same time, the shafts 24 being projected by arms 52 on the rod 53 actuated by the rod 54, the rod 55 and the lever 56.

It will be evident, therefor, that as the handle 30 and levers 50 and 56 are close together, the distance to be travelled in theory by the riders is indicated by a setting of the handle 30. As soon as the winner has been indicated the indicators are all stopped by pulling on the lever 50 and then the pointers are all returned to zero for the next trial by pulling on the lever 56.

When the levers 50 and 56 are again returned to their initial position, the pointers and the dials are ready to operate along with their shafts and the shafts are connected up with the connections or operating means from the motor.

The device is particularly adapted for use in amusement parks where prizes are competed for and for this reason the device is made somewhat fanciful as illustrated and for convenience and compactness the register is made up of electric bulbs which are lighted by suitable circuits within the skill of any electrician to install but I have thought it advisable to show, in Figure 6, at least a diagram of the wiring which can be carried on to the desired number of indicators but I have illustrated it as applied to two of them.

I claim:

1. An amusement device comprising a set of manually operable motors, an indicator for each motor, each indicator including a dial and a pointer, electrical contacts on each dial and forming part of an indicating circuit, means for selectively projecting the contacts, a contact on the pointer for engagement with the projected contact on the dial, and a set of registering devices actuated by the said circuits when completed to indicate the winner.

2. An amusement device comprising a set of manually operable motors, an indicator for each motor, each indicator including a dial and a pointer, electrical contacts on each dial and forming part of an indicating circuit, means for selectively projecting the contacts, a contact on the pointer for engagement with the projected contact on the dial, a set of registering devices actuated by the said circuits when completed to indicate the winner, and a releasing means for the pointers to return them to zero.

In testimony whereof I affix my signature.

JAMES MULLEN, JR.