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AQUATIC AMUSEMENT APPARATUS.

1,249,455.

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To all whom it may concern:

Be it known that I, HUBERT A. MYERS, a citizen of the United States of America, and resident of Toledo, Lucas county, Ohio, have invented a certain new and useful Improvement in Aquatic Amusement Apparatus, of which the following is a specification.

My invention contemplates an aquatic amusement-apparatus in which one or more aquaplanes are propelled along a prede-10 termined path or paths, by any suitable means, but preferably by one or more traveling cables operated by a central power-plant, and the entire apparatus being preferably 15 mounted upon a floating structure having one or more channels in which the aqua-

- planes travel, whereby said apparatus can be used in tide-water, being adapted to rise and fall with the tide without interfering with the desired mode of operation thereof.
- Generally stated, therefore, the object of my invention is to provide an amusement-apparatus which will operate on the aquaplane principle, and which can be used for teaching persons how to ride an aquaplane, 25
- but without the necessity of employing motor-boats, and with comparative safety for the persons who use the apparatus.

It is also an object to provide certain de-

- 30 tails and features of construction and combinations tending to increase the general efficiency and desirability of an aquaplaneamusement-apparatus of this particular character.
- To the foregoing and other useful ends, 35 my invention consists in matters hereinafter set forth and claimed.

In the accompanying drawings:-

Figure 1 is a plan view, more or less dia-40 grammatic in character, of an aquaplane amusement apparatus embodying the principles of my invention.

Fig. 2 is a side elevation of said apparatus

Fig. 3 is an enlarged vertical cross-section 45 of said apparatus.

Fig. 4 is a detail sectional view showing the manner in which the apparatus is used. Fig. 5 is an enlarged detail sectional view

of one of the automatic clutches for con-50 necting the aquaplanes with the cables.

Fig. 6 is a side elevation of the clutch shown in Fig. 5.

Fig. 7 is a detail sectional view of a por-55 tion of said apparatus, on the same scale as Figs. 2 and 4, showing the means for auto-

matically operating said clutches to connect the aquaplanes to and disconnect them from the traveling cables.

specification of Letters Patent. Patented Dec. 11, 1917.

Fig. 8 is a plan view of the devices shown 60 in Fig. 7.

Fig. 9 is a view similar to Fig. 5, but showing the clutch open, it being an enlarged section on line 5-5 in Fig. 7.

As thus illustrated, my invention com- 65 prises a floating structure A having a bottom and sides, the sides being provided with floats B of such character that the structure can be floated in a partially submerged posi-The said floating structure, in plan 70 tion. view, is preferably of the shape shown in Fig. 1, and is provided with one or more endless channels C, formed by inclined walls c, which latter are supported on the bottom of said structure in any suitable or desired 75 manner. Slots D are provided between the channels, between the highest portions of the walls c, and endless tracks E are mounted below these walls c, upon the bottom of the structure A, and slightly out of line with 80 said slots. The uprights F travel in said slots, having their lower ends rigidly connected to the horizontal supports f, the lat-ter having wheels G which travel in said tracks. Braces g connect the upper portions 85 of the uprights F with the front and rear ends of the supports f, so that said uprights will be braced against forward or backward tilt or displacement. Below each slot D, and slightly out of line therewith, there is a 90 traveling cable H, and these cables are supported and held to predetermined paths of travel by the sheaves h disposed at different points on the structure, as indicated in dotted lines in Fig. 1, so that said cables will 95 travel freely and easily and in the desired manner. A central power-plant is provided for operating said cables, comprising a motor or engine I mounted on the platform i at one side of the floating structure, and 100 suitably connected with the horizontal shaft J, which shaft extends transversely of the traveling cables. Different sized cable-wheels 1, 2 and 3 are mounted on said shaft J, to engage the different cables, and where- 105 by the latter will travel at different speeds. Each cable can be wound one or more times around its respective wheel, in the manner employed for other kinds of apparatus in which traveling cables are employed, such as 110 street-car cables, and each wheel is preferably somewhat out of line with its alotted

cable (see Fig. 8.), so that the clutches K which engage the cables will readily pass said wheels. Each clutch, it will be seen, comprises a pair of jaws k pivotally connected together at 4 and provided with rear 5 end-portions connected by a rod 5 and a spring 6, said spring serving by its expansion to force the two jaws together and into engagement with the cable. The grip-10 ping portions of said jaws are provided with lugs 7 to engage the long cams L, which latter are arranged adjacent the wheels 1, 2 and 3, so that each clutch will be automatically opened as it approaches said wheels 15 and automatically closed at a certain distance after passing the wheels. For this purpose, said cams are provided with tapered ends, so that one end of each cam.

will enter between the lugs 7 and thus sepa20 rate the jaws of the clutch, and whereby the other tapered end of the cam will then disen-gage these lugs 7 and allow the jaws to again grip the cable. These clutches are, it will be seen, suitably secured to the uprights F, and
25 with this arrangement each upright will automatically stop upon arriving at the

automatically stop upon arriving at the platform i, so that the attendant can push it forward by hand, and whereby each upright will then be automatically connected 30 at the other side of said platform with its allotted cable.

The aquaplanes M can be of the ordinary or well-known size and shape, and are connected by ropes or chains m with the tops 35 of the uprights F through the medium of the cross-bars N, whereby each upright F will propel two aquaplanes, one at each side thereof, along the channels C, in a manner that will be readily understood. Each aqua-40 plane is provided with a connection or bridle O for the rider to grasp (see Fig. 4.), so that the aquaplanes can be used or operated like those which are some times towed at the stern of a motor-boat. Obviously, 45 however, the aquaplanes M will be propelled over predetermined paths of travel, from a central power-plant, and along water-channels which are comparatively shallow, and under such conditions that the persons riding 50 on the aquaplanes will not be in any danger, especially while learning to ride.

It is obvious, of course, that as many cables and aquaplanes can be employed as may be desired, depending upon the condi-55 tions and circumstances of each case, and that the structure as a whole can have any desired size or shape, in plan view, although an elongated, endless course over which the aquaplanes may travel is preferable. By 60 floating the entire structure, in the manner shown and described, the apparatus can be used in tide-water, where the water rises and falls, without in any way interfering with the desired mode of operation. Any suit-65 able power can be employed for operating the cables, and with the construction shown and described it is contemplated that with proper management one attendant will be sufficient.

With the foregoing arrangement, the 70 aquaplanes are all controlled and operated from the central or stationary source of power, and by this is meant that the stationary source of power or central powerplant may remain in a given position during 75 the operation of the aquaplanes, and that the source of power does not travel with each aquaplane. Of course, the entire floating apparatus can be moved from one place to another, but the power-plant is relatively sta- 80 tionary while the aquaplanes are traveling around their courses.

What I claim as my invention is :---

1. An aquatic amusement-apparatus comprising an aquaplane, means to propel said 85 aquaplane, and a central power-plant from which motive power is derived to operate said means, so that said aquaplane is controlled from a stationary source of power.

2. An aquatic amusement-apparatus com- 90 prising an aquaplane, instrumentalities to establish a path of travel for said aquaplane, and means to propel said aquaplane along said path.

3. An aquatic amusement-apparatus com- 95 prising an aquaplane, means to propel said aquaplane, a central power-plant to operate said means, and a floating structure to carry said means and plant.

4. An aquatic amusement-apparatus comprising an aquaplane, instrumentalities to establish a path of travel for said aquaplane, means to propel said aquaplane along said path, and a floating structure to carry said instrumentalities and means. 105

5. An aquatic amusement-apparatus comprising an aquaplane, means to propel said aquaplane, and a central power-plant to operate said means, having provisions to gradually start said aquaplane while said 110 power-plant is operating said means at full speed.

6. An aquatic amusement-apparatus comprising an aquaplane, instrumentalities to establish a path of travel for said aquaplane, 115 and means to propel said aquaplane along said path, having provisions to automatically start and stop said aquaplane while said means are operating at full speed.

7. An aquatic amusement-apparatus com- 120 prising an aquaplane, means to propel said aquaplane, and a central power-plant to operate said means, said means comprising a traveling cable.

8. An aquatic amusement-apparatus comprising an aquaplane, instrumentalities to establish a path of travel for said aquaplane, and means to propel said aquaplane along said path, said means comprising an endless cable, a device to grip said cable, a connec-130

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tion between said aquaplane and cable, and means to automatically operate said device.

9. An aquatic amusement-apparatus comprising an aquaplane, means to propel said

5 aquaplane, a central power-plant to operate said means, and a floating structure having a water-channel for said aquaplane, said means and power-plant being carried by said structure.

prising an aquaplane, instrumentalities to establish a path of travel for said aquaplane, and means to propel said aquaplane along said path, said instrumentalities comprising a water-channel, and a guide extending along 15 said channel for said means. Signed by me at Toledo, Ohio, this 29th

day of January, 1917.

10. An aquatic amusement-apparatus com-10

HUBERT A. MYERS.

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

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