A. DOGLIONE.

BICYCLE RACE APPARATUS.

APPLICATION FILED APR. 21, 1919.

1,315,098.

Patented Sept. 2, 1919.

3 SHEETS—SHEET 1.

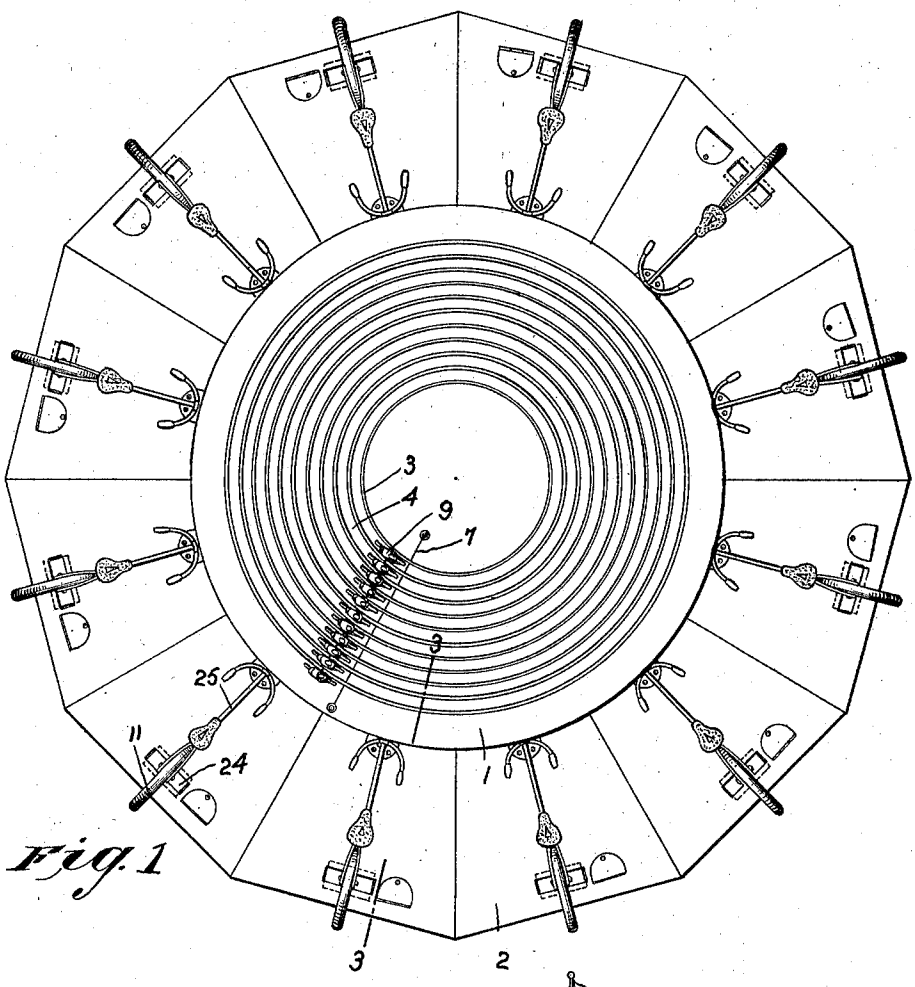



Fig. 1

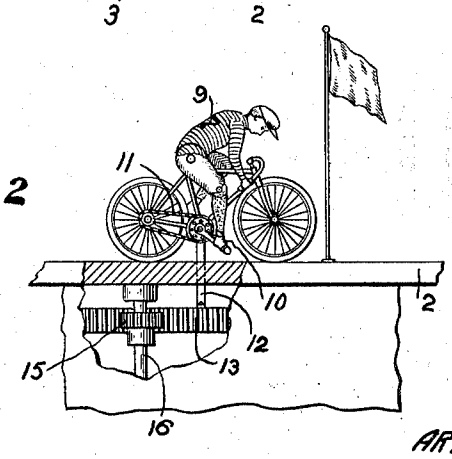



Fig. 2

WITNESSES

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3 SHEETS—SHEET 2.

Fig. 3

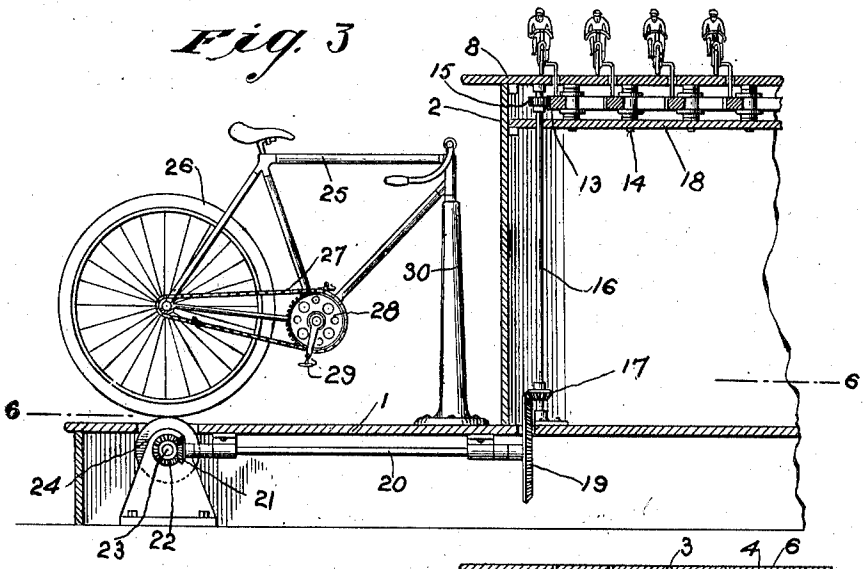
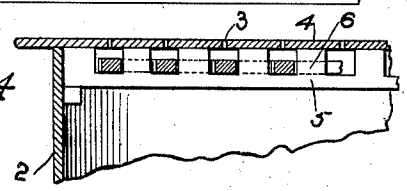



Fig. 4



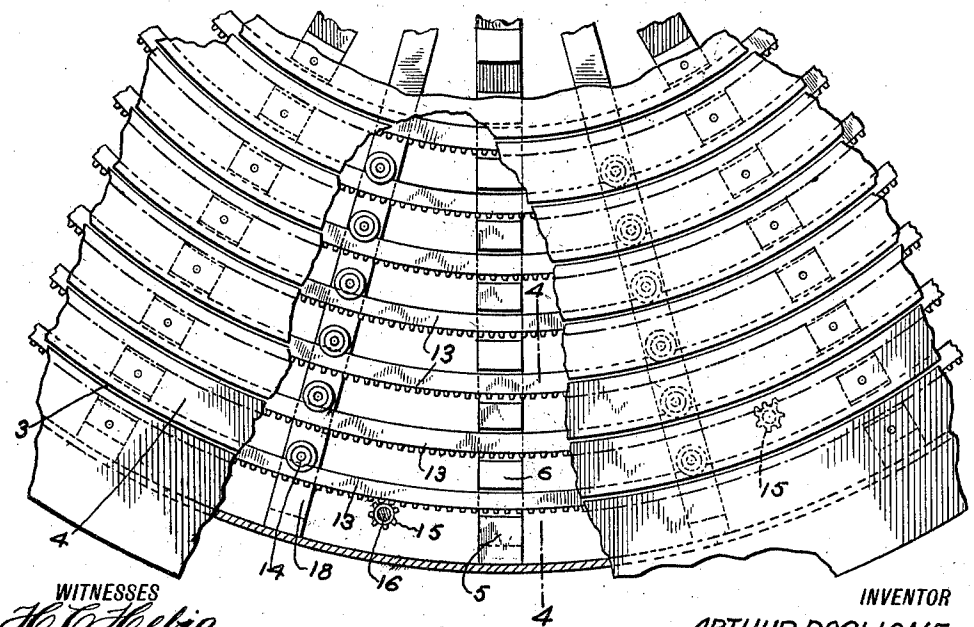




Fig. 5

WITNESSES

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3 SHEETS—SHEET 3.

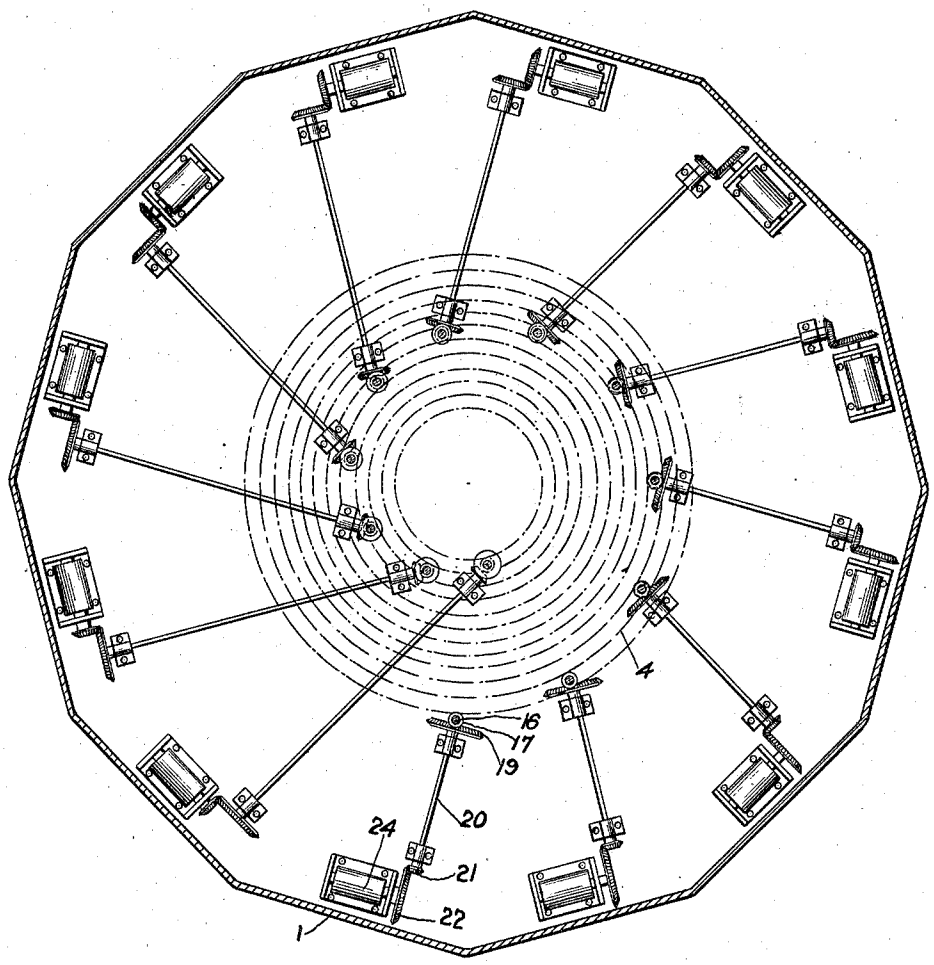



*Fig. 6*

WITNESSES

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# UNITED STATES PATENT OFFICE.

ARTHUR DOGLIONE, OF BROOKLYN, NEW YORK.

## BICYCLE-RACE APPARATUS.

1,315,098. Specification of Letters Patent. Patented Sept. 2, 1919.

Application filed April 21, 1919. Serial No. 291,555.

*To all whom it may concern:*

Be it known that I, ARTHUR DOGLIONE, a subject of the King of Italy, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Bicycle-Race Apparatus, of which the following is a full, clear, and exact description.

This invention relates to amusement apparatus and particularly to what is commonly known as a racing apparatus, and has for an object to provide means whereby the competitors may operate dummy bicycles at a distance.

Another object of the invention is to provide means wherein the skill of operating a bicycle at high speed is utilized to propel a miniature or dummy figure at a corresponding speed.

A still further object of the invention is to provide a number of movable figures and an arrangement around the figures for allowing individual competitors to operate any desired figure.

In the accompanying drawings:

Figure 1 is a top plan view of an amusement apparatus disclosing an embodiment of the invention.

Fig. 2 is an enlarged detail fragmentary sectional view showing one of the figures and certain of the mechanism for actuating the same.

Fig. 3 is a sectional view through Fig. 2 on line 3—3, the same being on an enlarged scale.

Fig. 4 is a fragmentary sectional view through Fig. 5 on line 4—4.

Fig. 5 is a fragmentary top plan view of part of the structure shown in Fig. 3, with certain parts broken away for better illustrating the driving rings and associate parts.

Fig. 6 is a horizontal sectional view through Fig. 3 on line 6—6.

Referring to the accompanying drawings by numerals, 1 indicates a platform on which the stand 2 is mounted, as shown in Fig. 3. This platform may be made of wood or other material. The stand 2, however, is made so that no one can see within the same, but provided with a number of annular slots 3 in the upper surface. By reason of the provision of a large number of these slots the top is divided into tracks or rings 4 which are supported by a number of radial bars 5 having projecting lugs 6 engaging and supporting the tracks in their proper position as shown in Fig. 4. If desired the tracks 4 could be nailed or otherwise secured to the radial bars 5 in order to prevent any shifting of these tracks and consequent closing up of the slots 3. A line 7 is provided on the top 8 of the stand 2 so as to indicate the starting point for the race. A miniature bicyclist 9 with a bicycle is provided for each of the rings 4, each of said bicycles have a rotatable rear wheel, a rotatable front wheel, said rear wheel being connected to suitable pedals 10 by a chain 11 so that as the bicycle moves the friction of the wheel against the track will cause a rotation thereof and consequent rotation of the cranks 10. The legs of the figure 9 are secured to the cranks of the bicycle so that as it moves the legs of the figure will move and give the appearance of the figure propelling the bicycle. This is not, however, the case, as the bicycle is propelled by a suitable rod 12 extending upwardly through one of the slots 3. The upper end of the rod 12 may be secured in any desired manner to the bicycle at a convenient point, while the lower end is secured to an annular rack ring 13. There is one rack ring for each track and consequently one rack ring for each figure 9. These rack rings, as shown in Fig. 5, are guided and held in place by what may be termed spools 14. These spools have wide flanges for supporting the rings and engaging the inner surface of each ring as well as the opposite sides, while the teeth portion of the racks are out of engagement with everything except its particular propelling pinion 15. Each ring 13 is meshing continually with the pinion 15, which pinion is rigidly secured to shaft 16 having a beveled gear 17. The rod 16 is held in a given place by a suitable radial bar 18 acting to hold the spools 14 in place and also for holding one end of rod or shaft 16 in place, while the opposite end is held by a suitable fitting secured to the platform 1, (Fig. 3). The gear 17 is in mesh with the beveled gear 19 which is rigidly secured to shaft 20 carried by suitable brackets connected with the platform 1 and receiving power through pinion 21 meshing with pinion 22 rigidly secured to the shaft 23 in the drum 24. Drum 24 is secured in any desired manner to the shaft 23 so that when the drum is rotated power will be transmitted to the ring 13 and will consequently

cause a movement of the figure 9. It is to be understood, of course, that each figure 9 is provided with a ring and with the shafts 16 and 20 and associate parts as just described and particularly shown in Fig. 3. The size of the beveled gears are, however, varied as indicated in Fig. 6, so that the miniature bicyclist nearest the center of the stand 2 will move at the same speed as all of the others provided the particular drum 24 associated therewith is rotated at the same speed as the drum associated with the other miniature bicyclist. By this means the outer miniature bicycle and its figure has no advantage over the inner bicycle and its figure.

In order to make the race fair, and in order to cause the figures to move according to the relative ability of those contesting in the race substantially regulation bicycle frames 25 are provided for each drum 24, said frame carrying a regulation wheel 26 resting on the drum 24, said wheel being driven by a chain 27 through the action of sprocket 28 and the pedals 29. The front part of the frame 25 is mounted on a suitable stand 30, though if desired a regulation fork and wheel could be provided without departing from the spirit of the invention. When the race is about to start each contestant seats himself upon the various bicycles or frames 25 and at the proper signal begins to pedal in the usual manner. Of course, the contestant does not move from his place, but causes a rotation of his particular drum 24, and such rotation will be in proportion to the speed of his pedaling. As each contestant can see his particular miniature bicycle and figure 9 he can always see what place he is assuming in the race.

It will, of course, be evident that any desired set of rules could be provided to follow when using the apparatus. In addition to providing amusement and excitement of contest the use of part of a genuine bicycle, or something which equals such a device causes the contestant to exercise himself or herself and thereby secure benefit physically as well as pleasure from the contest.

What I claim is:

1. An amusement apparatus of the character described comprising a cylindrical stand formed with a series of stationary rings acting as tracks, said rings being arranged in a horizontal plane, a rotatable wheel, means connected with the wheel operable by a contestant for rotating the wheel, a drum for supporting said wheel and rotated thereby, a plurality of shafts and gearing connected with said drum and rotated by the drum, a gear ring rotated by said shaft and gearing for each drum, a plurality of spool-shaped supports for each of said rings, and a miniature bicycle having a movable figure thereon connected with each of said gear rings and resting on said tracks.

2. An amusement apparatus of the character described comprising a circular bicycle platform, a cylindrical stand arranged on said platform, a plurality of horizontally positioned stationary spaced rings arranged on said stand acting as tracks, said rings being in a plane parallel with said stand, a miniature bicycle arranged on each of said tracks, a rod connected to each of said bicycles extending downwardly alongside the respective rings, a rotatable ring arranged beneath the stationary rings, there being one ring for each of said miniature bicycles, means for connecting said rods with said rotatable rings, a full sized bicycle arranged on said stand, and means connecting the full sized bicycle with said rings whereby when the full sized bicycle is operated said rotatable rings will be moved and the miniature bicycles caused to move over said tracks.

3. An amusement apparatus of the character described comprising a circular bicycle platform, a cylindrical stand arranged on said platform, a plurality of independent stationary spaced rings arranged on top of said stand, a plurality of radiating supporting bars connected with said stand and positioned beneath said rings, a plurality of supporting blocks for said rings, said supporting blocks being spaced apart and carried by said radially positioned bars, a gear ring for each of said first mentioned rings arranged between said bars and the first mentioned rings, a plurality of spools carried by said bars and positioned so that the flanges will fit over said gear rings for supporting the same in such a manner that they will travel between the respective blocks, a pinion meshing with each of said gear rings, a miniature bicycle connected with each of said gear rings, said miniature bicycles resting on the first mentioned rings, a drum arranged adjacent said platform for each of said gear rings, means connecting said drums with each of said pinions whereby when the drums are rotated the pinions and their respective gear rings will be rotated, and a bicycle arranged on said platform having the rear wheel resting on said drum, there being one bicycle for each drum whereby when the bicycle is operated the movement will be conveyed to said miniature bicycle so as to cause the same to travel over said ring.

ARTHUR DOGLIONE.

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