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T. W. HARGREAVES

RUNNING DEVICE

Filed April 7, 1923.

Fig. 1

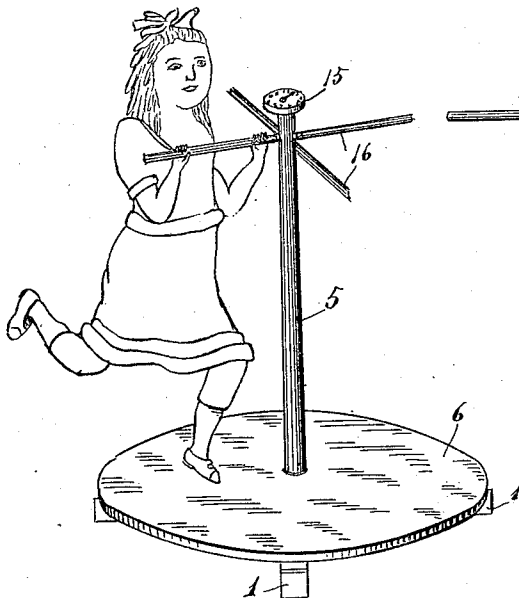


Fig. 2

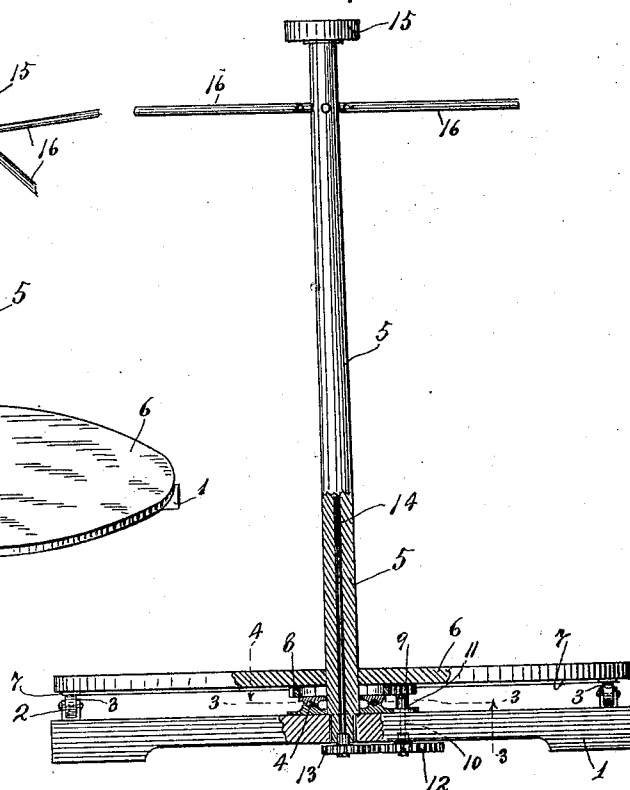


Fig. 3

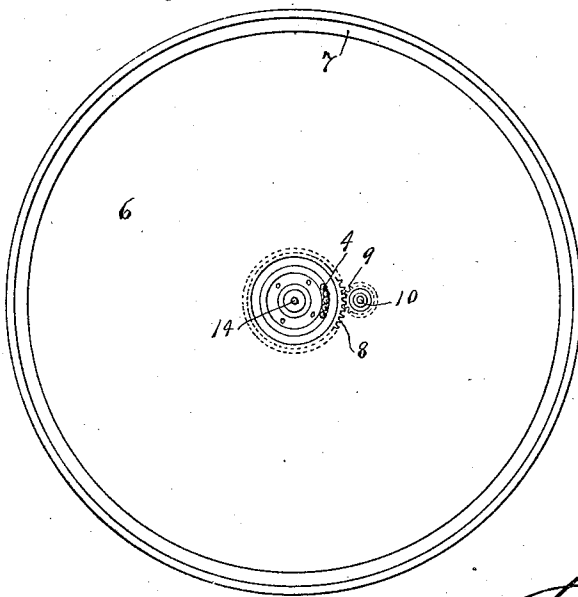
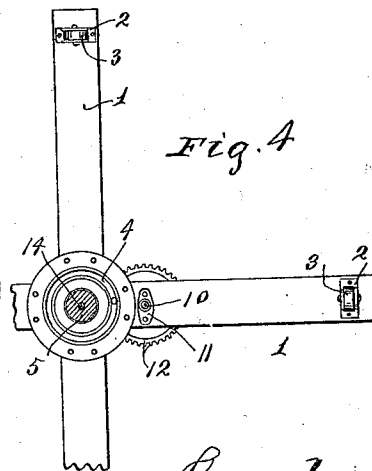


Fig. 4



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UNITED STATES PATENT OFFICE.

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RUNNING DEVICE.

Application filed April 7, 1923. Serial No. 630,506.

To all whom it may concern:

Be it known that I, THOMAS W. HARGREAVES, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Running Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an exercising apparatus or an exercising toy adapted to be used in gymnasiums, playgrounds, nurseries, etc. It is well known that running is one of the very best forms of exercises known and brings into play a great many muscles. Such exercise also is of great value for insuring deep breathing and development of the lungs.

It is an object of this invention, therefore, to provide an apparatus adapted to support the person using the same who can run thereon or simulate the running action, and at the same time, remain in substantially the same spot on the apparatus.

It is a further object of the invention to provide such a device or apparatus in the form of a revoluble platform suitably mounted for rotation with the supporting frame and having a stationary post rising vertically from the center thereof which is provided with outwardly extending arms adapted to be held by the operator.

It is a further object of the invention to mount a meter of suitable type on the said post to indicate the number of revolutions of the platform or the approximate distance that the person would have run, and to provide means for operating this meter by the movement of the platform.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to the same parts throughout the different views, and in which,

Fig. 1 is a perspective view of the apparatus showing a person operating the same;

Fig. 2 is a view in side elevation of the device, a portion thereof being shown in section;

Fig. 3 is a view in horizontal section taken on the line 3—3 of Fig. 2, as indicated by arrow 3; and

Fig. 4 is a partial view in horizontal section taken on the line 3—3 of Fig. 2, as indicated by arrow 4.

Referring to the drawings, the device comprises a frame formed of cross members or timbers 1 illustrated as intersecting substantially at right angles and being suitably joined at their intersection. These members 1 have secured thereto adjacent their outer ends bearings 2 in which are journaled rollers 3 and an annular ball bearing structure 4 is secured to said frame centrally thereof. A stationary post 5 is rigidly secured at its lower end in the members 1 and projects upwardly a considerable distance therefrom. A platform 6 illustrated as of substantially circular form is provided and has secured to its under-surface an annular strip 7 adapted to bear upon the rollers 3 so that the platform is supported thereon. The platform has an annular gear 8 secured to its underside at the central portion thereof, which gear is secured to and bears upon the upper rotatable member or race of the ball bearing structure 4. The platform is therefore supported adjacent its outer edge on the anti-friction rollers 3 and at its central portion on the ball bearing structure. A gear 8 meshes with a pinion 9 secured to the upper end of a shaft 10 journaled in a bearing 11 secured to the upper side of one of the cross pieces 1. The shaft 10 carries at its lower side, a gear 12 which meshes with a smaller gear 13 secured to the lower end of a rod 14 extending upwardly in the post 5. The rod 14 is adapted to be secured at its upper end to the operating mechanism of a meter 15 which may be of a type adapted to register the revolutions of the platform 6, such as a cyclometer, or the distance equal to the length of an intermediate circle on said platform multiplied by the number of revolutions. The post 5 has a plurality of arms 16 projecting outwardly therefrom adjacent its upper end, which arms preferably project radially, and are pivoted to swing to vertical position.

In operation, the person using the apparatus steps upon the platform 6 and grasps one of the bars 16. The person then begins to run or simulate running while

holding onto said bar. The platform 6 is thus propelled by the person's feet and said person can move his limbs as rapidly as desired, the speed of the platform increasing with the rapidity of movements of the operator. The revolving platform 6 will, through the described gear, rotate the rod 14 and the distance run or the revolutions of the platform can be seen on the meter 15 which preferably is disposed so that it can be observed by the operator.

From the above description it is seen that applicant has provided a simple form of apparatus which can be used for very healthful exercises. The device is quite suitable for public or private playgrounds for children and is also quite suitable for use in indoor nurseries or gymnasiums. The structure of the device is simple and the same is easily made and the parts are so constructed that the device will be very rugged and durable.

It will, of course, be understood, that various changes may be made in the form, details, arrangement and proportions of the parts without departing from the scope of applicant's invention, which, generally stated consists in a device capable of carrying out the objects above enumerated and such as shown and described and set forth in the appended claims.

What is claimed is:

1. An exercising device comprising a frame, a revoluble platform mounted thereon, a stationary post upstanding from said frame centrally of said platform, arms secured to and projecting from said post adapted to be grasped by a person supported on the platform whereby the person can simulate running and revolve said platform by the contact of his feet therewith.

2. An exercising device comprising a frame, a revoluble platform mounted thereon, circumferentially spaced anti-friction bearings in said platform on said frame adjacent the edge of said platform, anti-friction bearings in said platform on said frame adjacent the center of the platform, a stationary vertical post secured to said frame and rising centrally of said platform, a recording instrument supported on said post, means extending interiorly of said post for operating said instrument, and means for operating said first mentioned means

including an annular member secured to and revolved with said platform.

3. An exercising device comprising a frame including cross arms, a bearing roller supported adjacent the end of each cross arm, an annular bearing secured at the center of said cross arms, a stationary vertical post rising from said frame centrally thereof, radial arms projecting adjacent the top of said post, a circular platform supported on said bearings for rotation about said post, a cyclometer carried by said post, a rod extending through said post for operating said cyclometer, a gear secured to the lower end of said rod, an annular gear secured to the underside of said platform, and a shaft journaled in one of said cross arms and having gears at each end meshing, respectively, with said annular gear and the gear on said rod.

4. An exercising device comprising a frame including cross arms, a bearing roller supported adjacent the end of each cross arm, an annular bearing secured at the center of said cross arms, a stationary vertical post rising from said frame centrally thereof, radial arms projecting adjacent the top of said post, a circular platform supported on said bearings for rotation about said post, a recording instrument carried adjacent the top of said post, a rod extending through said post for operating said recording instrument, a rotating means secured to the lower end of said rod, and an annular member secured to the inside of said platform adapted to operate said rotating means when the platform rotates and thus operate said instrument.

5. An exercising device comprising a frame, a platform mounted thereon for revolution about a central axis, a stationary post supported in said frame and extending vertically through said platform, arms secured to said post and hinged about horizontal axes extending at right angles to said post whereby they may hang in vertical position or be raised to horizontal position and be grasped by a person supported on the platform so that the person can simulate running to revolve said platform by the contact of his feet therewith.

In testimony whereof I affix my signature.

THOMAS W. HARGREAVES.