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APPARATUS FOR EXERCISING AND TRAINING ANIMALS, PARTICULARLY HORSES

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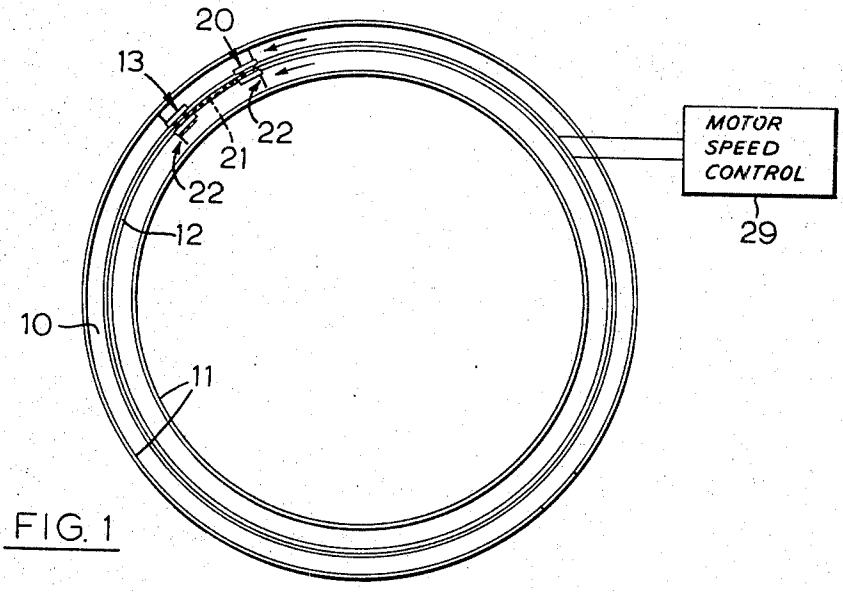

FIG. 1

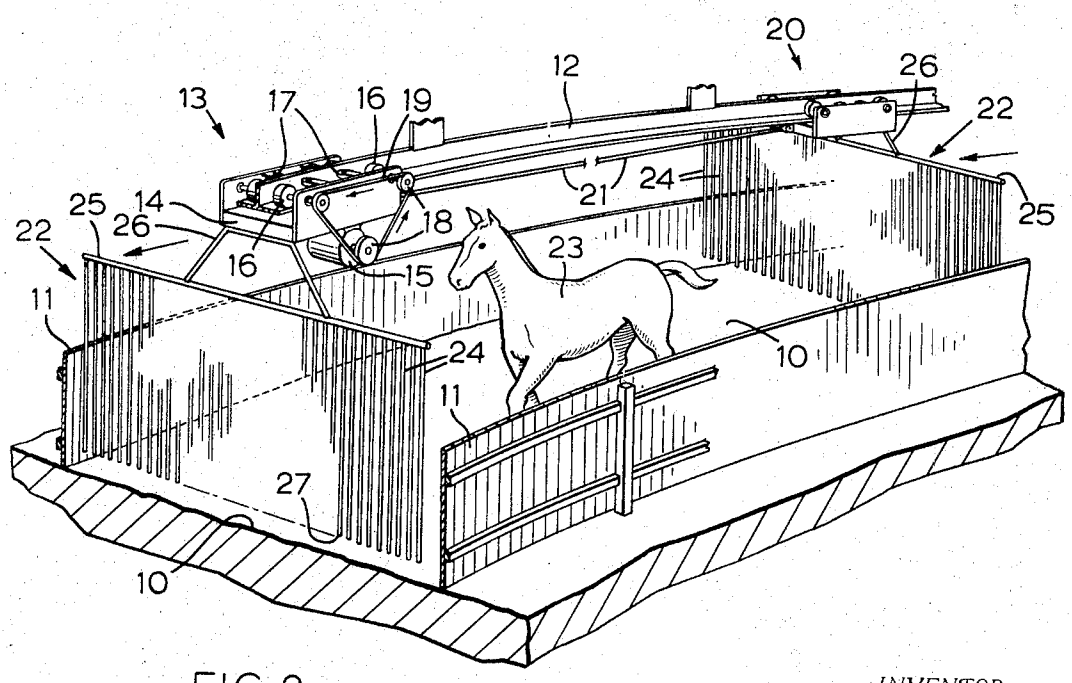

FIG. 2

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APPARATUS FOR EXERCISING AND TRAINING ANIMALS, PARTICULARLY HORSES

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This invention relates to an exercising and training device for horses, although it may be used for exercising and training other animals as well.

Race horses are required to be exercised frequently and periodically, and for this purpose exercise boys are employed.

It is important that horses be cooled down slowly immediately after a race, or after exercising, and for this purpose "hot walkers" are employed.

In stables with a large number of race horses, the salaries of exercise boys and "hot walkers" can amount to a considerable expense.

It is very desirable to commence the training of a race horse when he is relatively young. In some cases, it may not be possible to commence training at as early an age as desirable, because the horse may not be able to support the weight of a rider without damage to the horse's immature bone structure.

It also is desirable to be able to exercise weanlings, but these horses are so young that they would be totally incapable of carrying a rider. Difficulties also are encountered in exercising horses that have been injured to an extent such that they cannot properly support a rider and would be better exercised without weight on their backs.

In accordance with this invention, there is provided a device which eliminates the need for exercise boys and "hot walkers," which can be used for training horses without requiring them to carry a rider, and which can be used for exercising weanlings and injured horses, since riders are not necessary.

Attempts have been made in the past to provide mechanical exercising devices for horses. Typical of such attempts are the devices shown in United States Patents Nos. 1,062,495 and 2,500,805, C. G. Olin and E. Costello, respectively, issued May 20, 1913 and Mar. 14, 1950 respectively. In both of these devices, the horses are tethered to a member which moves in an endless path. Such devices have numerous disadvantages, most of which stem from the fact that the horses are tethered to the devices. Many horses would find it difficult to adjust to being tethered to a mechanical moving device. Horses that stumbled while so tethered might be seriously injured. In the case of fire, an appreciable amount of time might be required to free the horses from the devices. There is a real danger of a horse rearing and tangling himself in the lead rope fixed to the device. The attainment of rapid speeds while horses are tethered to the devices would be difficult, if not impossible. In addition, the horses to be exercised would have to be manually hitched to and unhitched from the devices.

In accordance with this invention, there is provided a horse exercising and training device that overcomes the aforementioned and other disadvantages of the patented devices hereinbefore noted. This device includes a movable member which is supported above a track for the animals and which is constrained to move in an endless path. A first flexible curtain is carried by the movable member and hangs downwardly therefrom towards the track. A second flexible curtain also is carried by the movable member and hangs downwardly therefrom towards the track. These two curtains are spaced apart from each other in the direction of movement of the movable member and define the space therebetween which

is sufficiently large that at least one animal to be exercised or trained may be disposed between the curtains facing in the direction of movement of the movable member without touching either of the curtains. The curtains are of a width that is greater than the width of the animal to be exercised or trained, and they are of a height such that a substantial portion of the animal is overlapped thereby. At least the curtain which moves ahead of the other curtain is constructed to permit the animal to see a portion of the track ahead of the leading curtain.

Other features will become apparent from the description which follows, taken in conjunction with the drawings, in which:

FIGURE 1 is a plan view of the track showing the carriage path.

FIGURE 2 is an enlarged perspective view of a portion of the track showing the relationship of the carriage, curtain and horse.

Referring to the drawings, there is shown an endless track **10** which may be of circular, oval or other configuration and which may be located indoors or outdoors. The track is bounded on both sides by walls **11** in which gates (not shown) may be provided to permit the horses to enter and leave the track.

Supported above track **10** in any suitable manner, e.g., from the roof of the building, or by supporting posts anchored on the ground, is an endless track **12** defining an endless path that is of the same shape as the shape of track **10**. In cross-section, track **12** is generally T-shaped, as may be seen best in FIGURE 2.

Running on track **12** is a carriage **13** that includes a generally U-shaped body **14**, a reversible electric motor **15** of the variable speed type, four driving wheels **16**, centering devices **17**, which properly position carriage **13** on track **12**, and pulleys **18** and a belt **19** which serve to transmit driving power from motor **15** to driving wheels **16**.

Disposed rearwardly of carriage **13** is a carriage **20** that is identical to carriage **13** except for having no motor, pulleys or belt. Carriage **20** is pulled or pushed by carriage **13** by means of a link **21** pinned to both carriages and extending therebetween.

Secured to carriage **13** and hanging downwardly therefrom towards track **10** is what could be referred to as a flexible curtain **22**. An identical flexible curtain **22** is secured to carriage **20** and also hangs downwardly towards track **10**. Flexible curtains **22** thus are spaced-apart from each other in the direction of movement (see arrows in the figures) of carriages **13** and **20** when carriage **13** is pulling carriage **20** and define therebetween a space sufficiently large that at least one horse **23** to be exercised or trained may be disposed therebetween facing in the direction of movement of carriages **13** and **20** without touching either of the flexible curtains **22**.

Flexible curtains **22** preferably each consist of a plurality of flexible, rope-like members **24**, such as ropes, cables, tubes, etc., that are spaced-apart from each other in a direction across track **10** so as to define curtains that extend substantially from one wall **11** to the other. Rope-like members **24** are secured to rigid rods **25** which are fixed to the carriages **13** and **20** by rigid frames **26**.

Each flexible curtain **22** should be of a width greater than the width of horse **23**, and the length of rope-like members **24** should be such that a substantial portion of horse **23** is overlapped thereby, i.e., the distance between track **10** and ends **27** of rope-like members **24** should be small relative to the height of horse **23** and the length of rope-like members **24** which determines the height of the curtain **22**.

As exemplary only, the spacing between flexible curtains **22** may be twenty-four feet, the width of a flexible curtain **22** may be fourteen feet, the height of rods **25**

above track **10** may be eight feet, and the distance between track **10** and ends **27** may be one foot. When the apparatus shown in the drawings is constructed using the foregoing dimensions, sufficient space should be available to accommodate several horses in the space between flexible curtains **22** and side walls **11**.

It is important that the leading one of flexible curtains **22** be constructed such that a horse being exercised or trained can see the track ahead of the curtain, so as to permit the horse to see and avoid any objects on the track **10**. Both curtains should be so constructed if it is desired to have carriages **13** and **20** move either clockwise or counter-clockwise around track **12**. The construction of curtains **22** shown in the figures and previously described permits attainment of this object, but it should be appreciated that other types of curtains **22** may be employed as long as they are flexible and the horse can see through the leading one. The factor of flexibility is important, since with a curtain so constructed, a horse can move through it, or it can move over the horse, without injuring the horse.

Electricity is supplied to motor **15** via contacts (not shown) that engage electrified conductors (not shown) carried on track **12**. Any conventional motor speed controller **29** (FIGURE 1) may be used to vary the supply of electricity to these conductors and hence to motor **15** to permit variations in the speed at which carriages **13** and **20** and flexible curtains **22** move around track **10**.

While what could be referred to as a monorail has been shown for carrying and moving curtains **22** around track **10**, many other arrangements are possible. Thus, the apparatus shown in the aforementioned patent to Costello could be used, if modified so that flexible curtains **22** were carried by Costello's moving cable **14**, one set of such curtains being substituted for each one of Costello's yokes **21** and halter ropes **22**.

In operation, a horse to be exercised or trained is placed between flexible curtains **22**. No attempt is made to in any way tether the horse. Motor **15** is started, causing curtains **22** to move around track **10**. The horse, not wanting to be touched by curtain **22** behind him, and not wanting to run through curtain **22** ahead of him, will move along at the same speed as carriage **13**. The speed of carriage **13** may be varied to cause the horse to move at any speed from a walk to a full speed gallop.

If the horse should stumble or fall, the equipment will cause him no harm, because he cannot be dragged by it. Instead, the trailing flexible curtain **22** will merely move over the horse's body. Since the horse is not tethered, there is no lead rope in which he might become tangled. No time is wasted in hitching and unhitching the horse, and the hosre can be removed quickly from between curtains **22** should a fire develop. Wide speed variations are possible without dangers that are involved when devices with horses tethered thereto are operated at a fast speed.

While a preferred embodiment of this invention has been disclosed herein, those skilled in the art will appreciate that changes and modifications may be made therein without departing from the spirit and scope of this invention as defined in the appended claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. Apparatus for exercising and training animals, particularly horses, comprising; a movable member supported above a track for the animals and constrained to move in an endless path; a first flexible curtain carried by said movable member and hanging downwardly therefrom towards said track; a second flexible curtain carried by said movable member and also hanging downwardly therefrom towards said track, said first and second flexible curtains being spaced apart from each other in the direction of movement of said movable member and defining therebetween a space sufficiently large that at least one animal to be exercised or trained may be disposed therebetween facing in the direction of movement of said movable member without touching either of said flexible curtains, said flexible curtains being of a width greater than the width of the animal to be exercised or trained and of a length such that a substantial portion of the animal to be exercised or trained is overlapped thereby, at least the one of the flexible curtains which moves ahead of the other flexible curtain constituting a means to permit the animal to see a portion of said track ahead of said one flexible curtain.

2. Apparatus according to claim **1** including an endless track defining said endless path, said movable member running on said endless track.

3. Apparatus according to claim **1** including means for controllably varying the speed of said movable member.

4. Apparatus according to claim **1** wherein said flexible curtains each comprise a plurality of flexible, rope-like members spaced-apart from each other in a direction across said track for said animals.

5. Apparatus according to claim **1** wherein the distance between said track for said animals and the part of said flexible curtains closest thereto is small relative to the height of the animal to be exercised or trained and the length of said flexible curtains.

6. Apparatus according to claim **1** including side walls upstanding on both sides of said track for said animals, said flexible curtains extending substantially from one of said side walls to the other.

7. Apparatus according to claim **5** including an endless track defining said endless path, said movable member running on said endless track, and means for controllably varying the speed of said movable member.

8. Apparatus according to claim **7** wherein said flexible curtains each comprise a plurality of flexible, rope-like members spaced-apart from each other in a direction across said track for said animals.

9. Apparatus according to claim **8** including side walls upstanding on both sides of said track for said animals, said flexible curtains extending substantially from one of said side walls to the other.

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