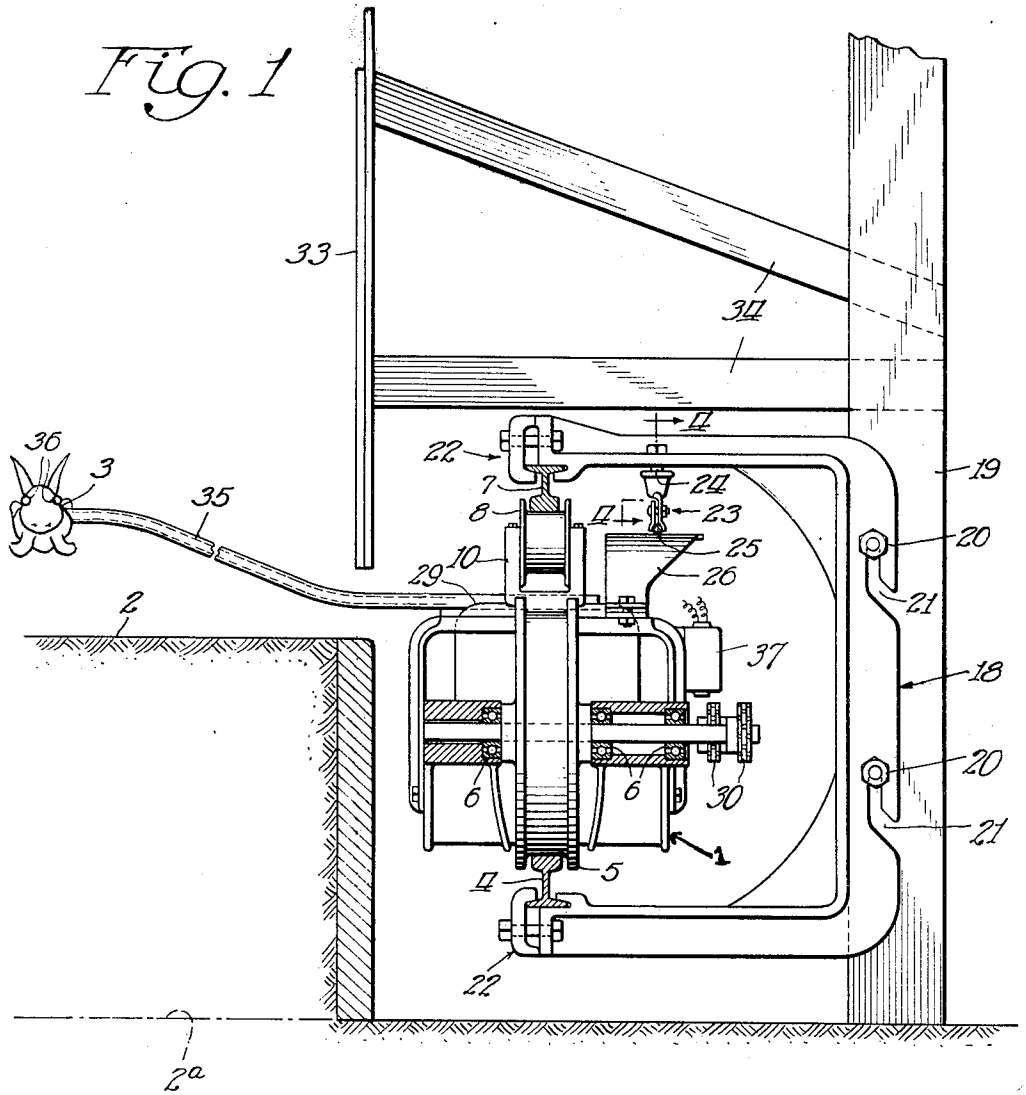
Oct. 17, 1933. V. SOULES 1,930,780

ANIMAL RACING APPARATUS

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Fig. 1



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Fig. 2

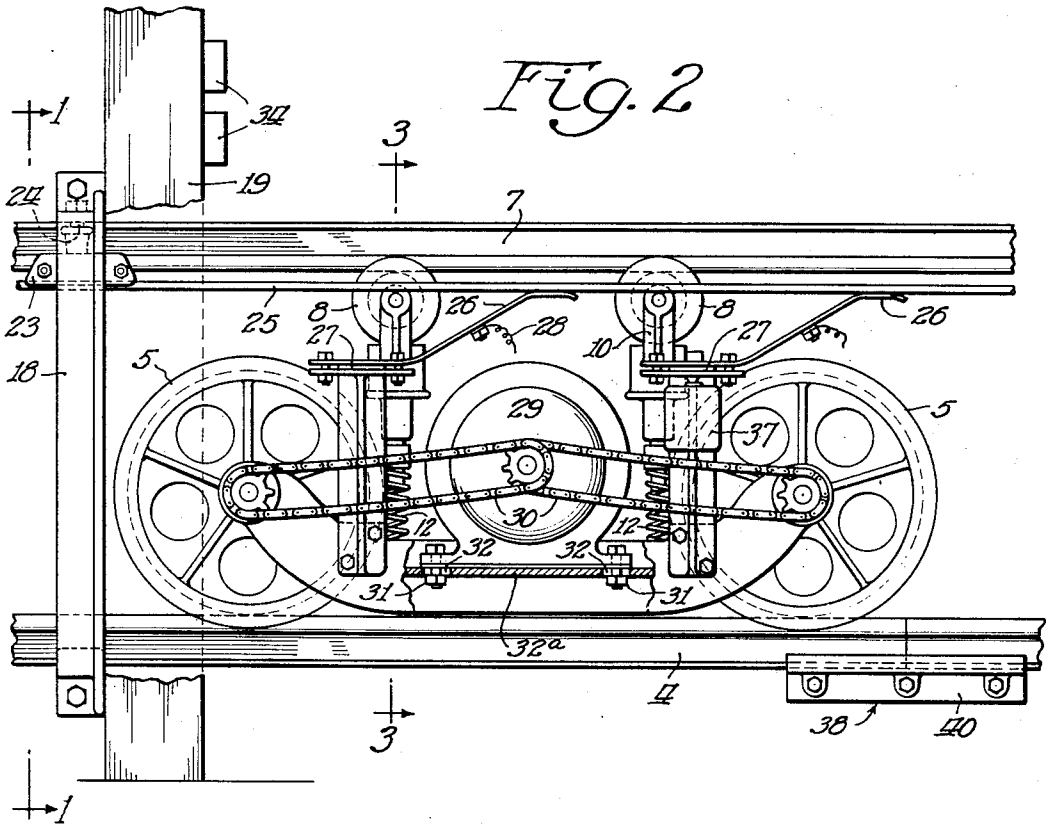
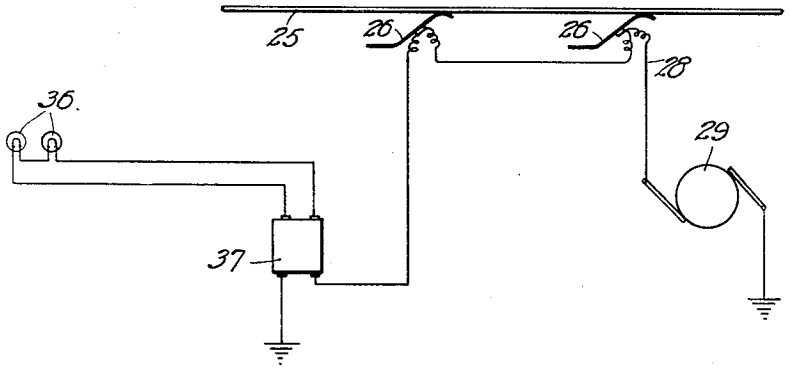


Fig. 6



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Fig. 3

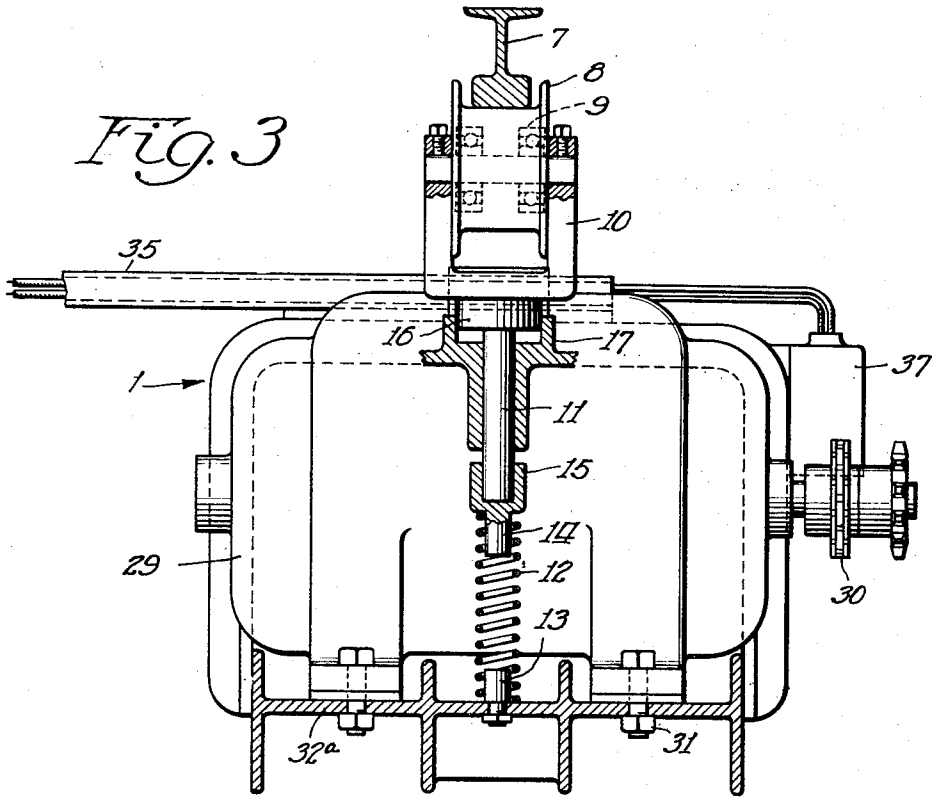


Fig. 4

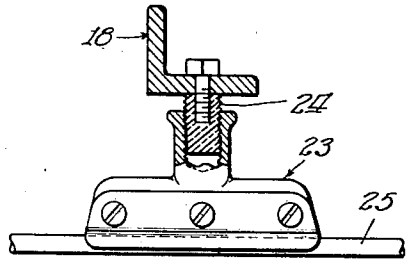
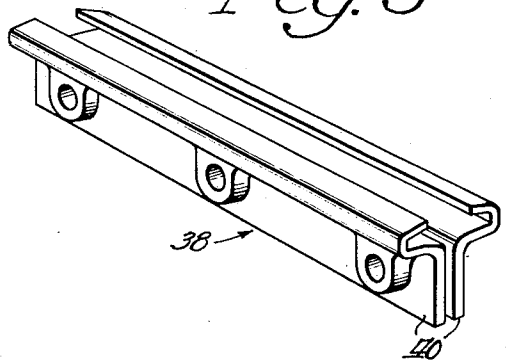


Fig. 5



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UNITED STATES PATENT OFFICE

1,930,780

ANIMAL RACING APPARATUS

Verne Soules, Chicago, Ill.

Application May 20, 1931. Serial No. 538,796

5 Claims. (Cl. 104—121)

This invention relates to animal racing apparatus more particularly for use with lures simulating a rabbit.

Among other objects, the invention aims to provide a conveniently portable apparatus which can be easily and quickly set up and which will have at the same time the necessary stability and efficiency of operation.

Other objects and advantages will be apparent from the following description and accompanying drawings, which illustrate an embodiment of the invention.

In the drawings—

Figure 1 is a section on line 1—1 of Figure 2 of apparatus embodying my invention with the forward wheel bearing in section and the remaining parts in elevation.

Figure 2 is a side elevation of the parts shown in Figure 1 with the motor supporting member broken away.

Figure 3 is a vertical section taken on line 3—3 of Figure 2 with some of the parts in elevation.

Figure 4 is a section of the insulating conductor support taken on line 4—4 of Figure 1.

Figure 5 is a perspective view of rail joint.

Figure 6 is an illustrative circuit employed with my invention.

Referring in detail to the figures of the drawings, I have shown, in general, an electric car 1 adapted to travel alongside a path 2 (which may be a portion of an oval race track for dogs) and to carry a lure such as the simulation of a rabbit 3 rigidly connected to and extending therefrom.

The car 1 travels upon a lower rail 4 through the medium of two relatively large flanged wheels 5, which are journaled upon the car preferably in anti-friction bearings 6. The car is held upright in a substantially vertical plane by contact with an upper rail 7 through the medium of smaller flanged wheels 8 which are also journaled upon the car, preferably in anti-friction bearings as at 9.

The upper wheels 8 are desirably resiliently connected to the car and as here shown (Figure 3) are each supported by a forked member 10 which has a central cylindrical leg 11 passing down through a suitable aperture in the frame of the car and in sliding relation therewith. In this instance, the bottom end of the leg 11 is resiliently supported by a spring shown as the coil spring 12 which seats at its lower end upon a stud 13 in the lower region of the car frame and at its upper end upon a stud 14 depending from a cup shaped socket 15 which in turn receives the end of the leg 11. To further stabilize the forked member 10 and guide it in its vertical movement upon the spring 12, a circular boss 16 surrounding the upper end of the leg 11 may be provided to be slidingly received in a circular socket 17 in the upper region of the frame of the car 1.

In accordance with my invention, the upper and lower rails 4 and 7 which may conveniently be of general I-beam cross-section, are supported by a plurality of portable jaws which are located at suitable intervals along the path 2. These jaws are large enough to permit the car 1 to pass therethrough. Referring to Figures 1 and 2, one of the jaws 18 is shown appropriately anchored in upright position as, in this instance, by being bolted to a fence post 19 by means of the bolts 20. Slots 21, having a vertical branch and an open ended angular branch, permit the jaw 18 to be easily and quickly secured to the post 19 and permit of selective adjustment of the jaw with respect to the post.

Clamping means at each remote end of the jaw 18, indicated generally at 22, secure the rails rigidly to the jaw. The jaw 18 also carries a conductor support 23 through the intermediation of an insulating block 24, by means of which support 23 may be carried an electric current conductor such as the wire 25. A metallic brush 26 affixed to the car, but insulated therefrom as by the insulating block 27, provides a moving contact with the wire 25 and is in electrical connection as by means of a wire 28 with a motor 29 which is then grounded to the frame of the car 1 (these connections not being shown but being merely diagrammatically indicated in Figure 6). Preferably there are two of the brushes 26 each so connected.

Power for propelling the car is transmitted from the motor 29 to the large flanged wheels 5 by means of the endless chains 30, each of which engages a sprocket on the shaft of the motor and another sprocket on the axle of one of the wheels 5. I have found that such a chain and sprocket arrangement is superior to gearing. To readily equalize the slack in the two chains, I mount the motor 29 in such a way that its location lengthwise of the car may be adjusted, for example by means of the bolts 31 which pass through longitudinal slots 32 in the motor supporting member 32*a* of the car.

The fence 33 is usually mounted so as to conceal the rails and car and may be suspended between the rails and the path 2 as by means

of beams 34 appropriately secured to the post 19, the beams 34 passing over the rails 4 and 7 and permitting the car 1 to pass under them without obstruction. So constructed and arranged, also, an uninterrupted passage is provided throughout the length of the race track, for the arm 35 which supports the lure or rabbit 3. As shown in full lines in the drawings, the rail 4 is depressed below the level of the path 2, in which case the arm 35 is but slightly bent to secure the appropriate height of the rabbit above the path 2, but if it is desired not to depress the rail 4, but to have the rail above the level of a pathway 2*a*, then the arm 35 may take the form suitable therefor to bring the lure down to the appropriate distance above the pathway 2*a* and the fence 33 may be continued downward to an appropriate distance above the pathway 2*a* to conceal the car 1 and the rail 4.

To permit of night use of my improved racing apparatus, I provide means for illuminating the lure. As here shown, the eyes of the rabbit 3 are set with incandescent electric lamps 36. These lamps are in electrical connection with the source of current provided by the wire 25 (these connections not being shown in detail but being diagrammatically illustrated in Figure 6). To reduce the voltage from the conductor 25 suitably to these relatively small lamps, I provide means such as the transformer 37 inserted between the lamps and the wire 25.

To facilitate clamping of the contiguous sections of the rails 4 and 7 together easily and effectively, I provide a rail joint 38 which as here shown comprises complemental gripping members adapted to grip the bases of two contiguous rail sections and a depending flange 40 on each complemental gripping member adapted to be bolted together to clamp the gripping members together and to the rails.

So constructed and arranged, the parts for my improved animal racing apparatus may be disassembled and packed together to assume relatively little space for convenient transportation, while they may be quickly and securely assembled without the necessity of providing any permanent structure therefor.

I claim:

1. In animal racing apparatus wherein a lure is carried by an automatically propelled car; the combination of a plurality of portable jaws each comprising a vertical portion and integral horizontal portions extending in the same direction laterally therefrom; means for supporting the jaws in spaced abreast relation; a plurality of sections of a single lower rail and a plurality of sections of a single upper rail extending transversely of the jaws end to end and supported respectively by the lower and upper ends of the jaws; and clamping means at the ends of the horizontal portions for securing the rail sections thereto, said jaws being of sufficient size to pass the car therethrough on said rails.

2. In animal racing apparatus wherein a lure is carried by an automatically propelled car; the combination of a plurality of portable jaws each comprising a vertical portion and integral horizontal portions extending in the same direction laterally therefrom; means for supporting the jaws in spaced abreast relation; a plurality of sections of a single lower rail and a plurality of sections of a single upper rail extending transversely of the jaws end to end and supported respectively by the lower and upper ends of the jaws; clamping means at the ends of the horizontal portions for securing the rail sections thereto, said jaws being of sufficient size to pass the car therethrough on said rails; complemental gripping members receiving the bases of contiguous rails therebetween; flanges on said gripping members; and bolts securing said flanges together.

3. In animal racing apparatus wherein a lure is carried by an automatically propelled car; the combination of a plurality of portable jaws each comprising a vertical portion and integral horizontal portions extending in the same direction laterally therefrom; means for supporting the jaws in spaced abreast relation; a plurality of sections of a single lower rail and a plurality of sections of a single upper rail extending transversely of the jaws end to end and supported respectively by the lower and upper ends of the jaws; clamping means at the ends of the horizontal portions for securing the rail sections thereto, said jaws being of sufficient size to pass the car therethrough on said rails; and an insulated conductor carried by the jaws.

4. In animal racing apparatus wherein a lure is carried by an automatically propelled car; the combination of a plurality of portable jaws each comprising a vertical portion and integral horizontal portions extending in the same direction laterally therefrom; means for supporting the jaws in spaced abreast relation the vertical portions of the jaws having vertical slots therein having laterally directed open ends for receiving bolts carried by the supporting means; a plurality of sections of a single lower rail and a plurality of sections of a single upper rail extending transversely of the jaws end to end and supported respectively by the lower and upper ends of the jaws; clamping means at the ends of the horizontal portions for securing the rail sections thereto, said jaws being of sufficient size to pass the car therethrough on said rails; and an insulated conductor carried by the jaws.

5. In animal racing apparatus wherein a lure is carried by an automatically propelled car; the combination of upper and lower rails disposed in a vertical plane; an integral metallic jaw supporting both rails; an electrical conductor carried by said jaws apart from the rails and insulated therefrom; a car having rolling engagement with both upper and lower rails; and a contact carried by said car and having moving engagement with the conductor.

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