Jan. 14, 1930. A. E. BLAND 1,743,875

ELECTRICAL STARTER FOR RACING DOGS

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Fig. 1.

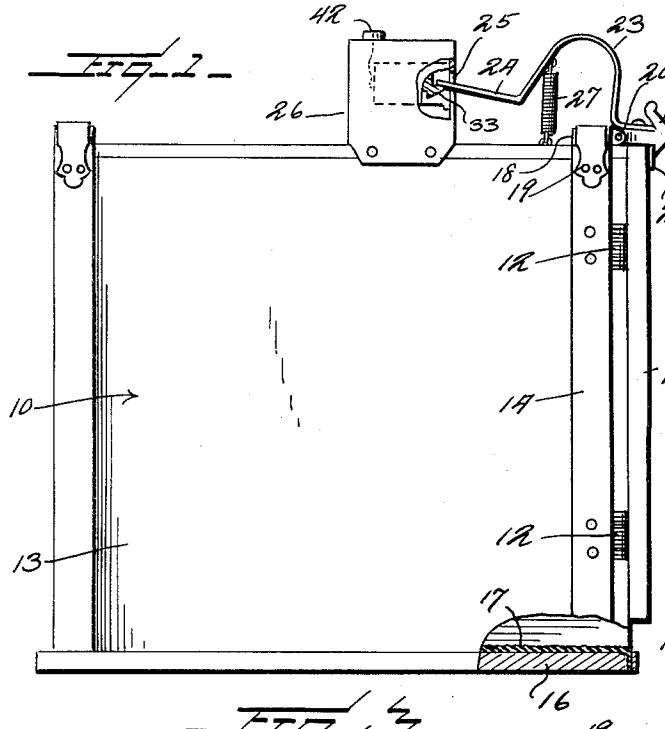


Fig. 2.

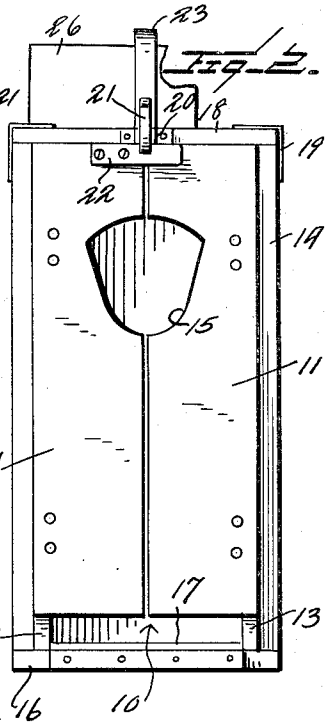


Fig. 3.

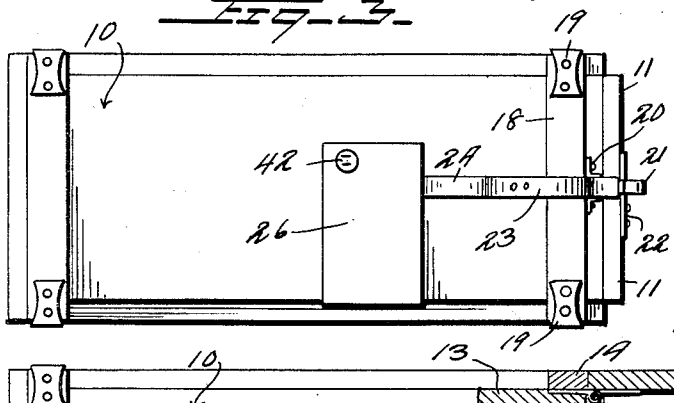
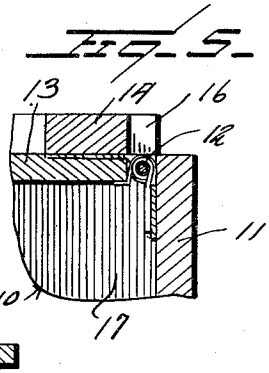


Fig. 5.



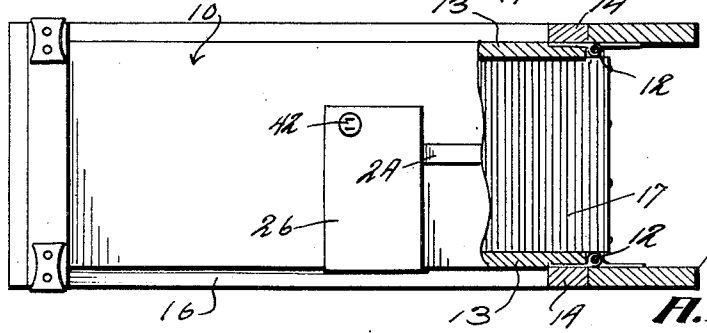


Fig. 4.

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Fig. 8.

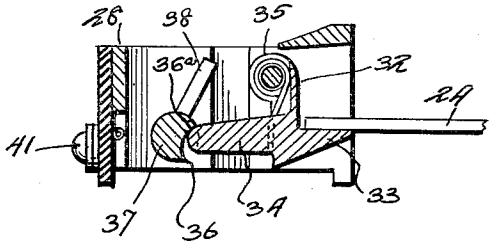


Fig. 9.

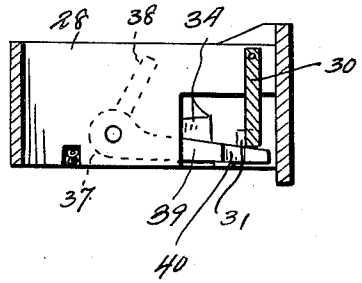


Fig. 6.

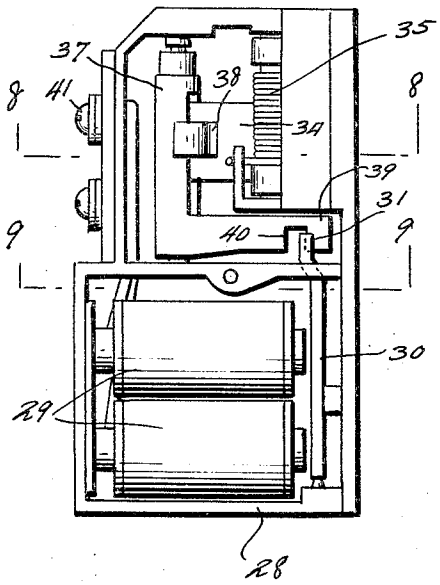
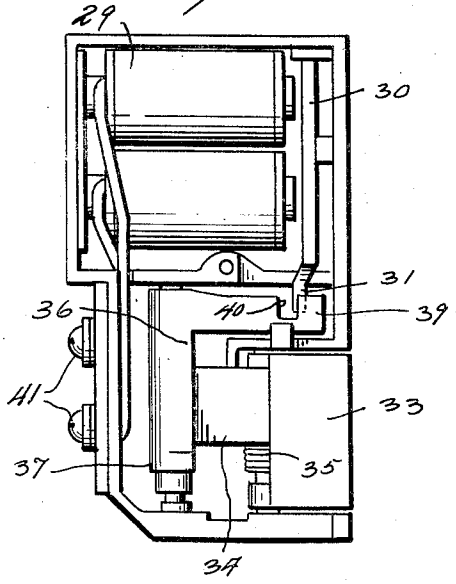


Fig. 7.



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UNITED STATES PATENT OFFICE

ALFRED EDWARD BLAND, OF COLUMBUS, OHIO

ELECTRICAL STARTER FOR RACING DOGS

Application filed December 28, 1927. Serial No. 243,088.

This invention relates to the art of racing dogs such as whippets or greyhounds, and particularly to the means for starting the dogs.

In whippet and greyhound racing, it is the common practice for the whippets or greyhounds to be started by hand. The trainer or starter holds the dog and upon a pistol shot or other signal releases the dog. It is also the common practice for the starter to throw the dog forward along the track and thus some dogs are given a very good start and other dogs are released badly or clumsily and do not get the start given to the other dogs.

Starting boxes have also been provided having doors urged to a fully opened position and held in a closed position by a latching device, mechanism being provided whereby all of the latches may be released at one time to permit all of the dogs to be started at the same instant, these boxes being further constructed so that the dog may see out and thus may be prepared for the start.

The general object of my invention is to provide a latching mechanism of a very simple and effective character which will hold two swinging doors closed, but which when released will permit the simultaneous opening of both doors of each starting box, this mechanism being electrically releasable.

A further object is to provide a starting box with a door formed of two spring opened leaves, the joined edges of the leaves being cut away to provide an opening through which the dog may project his head and provide a latch holding the door closed and means for releasing the latch.

Another object is to provide a latch normally holding both doors closed against the action of a spring, the latch being electrically releasable, each starting box being provided with such a latch and having means whereby electrical wires may be plugged into the box, the box being capable of being located anywhere along the track so as to provide for handicapping certain of the dogs if necessary.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a side elevation of a starting box for racing dogs constructed in accordance with my invention, portions of the box being partly broken away;

Figure 2 is a front elevation with the doors closed;

Figure 3 is a top plan view with the doors closed;

Figure 4 is a top plan view partly in section and showing the doors open;

Figure 5 is a fragmentary horizontal section showing the doors closed;

Figure 6 is a top plan view of the electrically actuated latch;

Figure 7 is a bottom plan view;

Figure 8 is a section on the line 8—8 of Fig. 6;

Figure 9 is a section on the line 9—9 of Fig. 6.

Referring to the drawing, it will be seen that the starting box 10 is rectangular in form and is provided with the two doors 11, these doors being hinged at their outside edges by spring hinges 12 to the side walls 13 of the box or to the forward frame members 14 thereof, and when these doors swing open under the action of the spring hinges they swing to a straight-ahead position, as shown in Figure 4. The two doors are formed with conjoined cut-away portions 15 disposed at approximately the height of the dog's head so that the dog may look out of the box, see what is happening, and see at the end of the course his master or trainer waving the white rag which incites the dogs to make their runs.

The floor of the box, which is designated 16, is preferably covered with corrugated rubber 17 or an equivalent covering so that the dogs will get a good foothold in springing forward and thus prevent any possible slip. The members 14 extend upward from the bottom of the box to the top thereof and act as bracing stays for the box and support the transverse cross bar 18 which may be held to the members 14 by means of the corner pieces 19.

Pivotally mounted upon ears 20 attached

to this cross bar 18 is a latch 21 having a downwardly extending tooth. One of the doors 11 is provided with an iron 22 which, when the doors are closed, extends over the other door and the latch 21 engages over this iron 22 and normally holds the doors closed. The latch is pivoted, as before stated, and in order to raise the latch I provide the upwardly curved or bowed member 23. This member is formed by a relatively wide leaf or strap of metal 24 which is attached at one end to the latch. The other extremity of this member passes into a slot 25 formed in a casing 26, this casing being mounted upon the top of the box. A coiled spring 27 extends upward from the top of the box and engages at its upper end with the strap 24. This coiled spring is a contractile spring and acts to urge the member 24 downward at its rear end, and when the latch is depressed the spring is flexed forward and the rear end of the member 24 is raised.

For the purpose of holding the member 24 raised at its rear end against the action of the spring 27, I provide the mechanism illustrated in Figures 6 to 9, this mechanism being disposed within the casing 26. The mechanism comprises a frame 28 which supports a pair of electro-magnets 29 and a hinged or pivoted armature 30. This armature is formed with a laterally projecting lug 31. Also mounted in the frame is a keeper or latch 32 which is provided with the outwardly projecting lip 33. This keeper or latch is pivoted in the frame 28 for oscillation and is formed with the outwardly projecting tongue 34. The pivot pin upon which this keeper is mounted is surrounded by a coiled contractile spring 35. The spring 35 acts to urge the latch 32 in a counter-clockwise direction in Figure 8 and the extremity of the latch operating member 24 is supported by the lip 33. The spring 27 urges the rear end of the member 24 downward and hence urges the latch 32 in a clockwise direction against the action of the spring 35. This is prevented, however, by a projecting lug 36ª on a spindle 37 and which normally overhangs the extremity of the tongue 34. The spindle 37 is oscillatably mounted in bearings in the frame and has an outwardly projecting tappet 38 normally disposed in the path of movement of this tongue 34. The spindle 37 is formed with a lug 36 which normally extends beneath the extremity of the tongue 34.

This spindle 37 at one end has an arm 39 which normally extends down beneath the laterally projecting lug 31 on the armature 30. This arm is slotted, as at 40. When the electro-magnets are de-energized, the lug on the armature is disposed beyond the slot 40 and prevents the arm 39 from swinging upward. When the electro-magnets are energized, however, the armature 30 is drawn rearward so that its lug 31 moves in alignment with the slot 40, the arm 39 can then turn in a clockwise direction in Figure 9. When arm 39 is released the heavy spring 24 acts to depress the lip 33. This raises the tongue 34 which strikes the tappet 38 causing the spindle 37 to rotate in a counter-clockwise direction. This permits the member 24 to escape from the keeper under the action of the spring 27. This, as before stated, raises the latch 21 and permits the two valves of the door to open under the action of the door springs. As soon as member 24 has passed the keeper the spring 35 acts to return the keeper to its original position and as the keeper swings in a counter-clockwise direction the tongue 34 bearing against the lug 36 causes the spindle 37 to rotate in a clockwise direction carrying the arm 39 again to a position below the offset end of lug 31 of the armature 30. The electro-magnets are, of course, operatively connected to binding screws 41 mounted upon the frame and these binding screws in turn are connected to wires leading to sockets 42 formed on the casing 26. These sockets are so arranged that wires may be plugged in, these wires leading to the judges' stand and being connected to a source of current and to a button.

All of the various starting boxes are connected in circuit with this single button so that when the button is depressed the electro-magnets 29 associated with each of the starting boxes are energized and this causes the instantaneous opening of the doors of all of the starting boxes so that the dogs all have a perfectly even start. If it is desired to handicap any dog, the particular starting box is disposed further away from the finish or goal of the race.

While I have heretofore described the starting box as if each dog had a box entirely separated from any other box, it will be understood that I do not wish to limit myself, as in greyhound racing a single large box is used which is divided into stalls or separate boxes, but otherwise than this the construction will be the same as the whippet boxes. However, while I do not wish to be limited to the use of a split door, that is a door formed in two leaves or valves, yet the split door provides for the quickest possible start, as a small dog will get away quicker than a larger dog if the doors either lift up or drop down. It will be seen that with this construction either one or one hundred individual boxes or the doors of individual stalls can be operated at one time.

By having an opening in the doors or leaves large enough to permit the dog to project his head through and through which the dog may see, I permit the dogs to be incited by the waving of rags or the like at the goal by the trainers before the doors are opened so that the dogs are on the qui vive to run the

race before the doors are opened and will make a quick start. If the dog has his head projected through the opening in the door he is not only incited to race by the waving of a red flag or the like, but by seeing the heads of other dogs also projected through the openings in their respective doors which arouses the spirit of animation in the dog.

If the doors did not have openings through which the dogs could project their heads, the dogs would not be incited to race until after the doors were opened and they would be somewhat dazzled by coming out into the bright light and then seeing their trainers and being incited to race.

While I have illustrated certain details of construction and arrangement of parts, I do not wish to be limited thereto as it is obvious that many changes might be made in these details without departing from the spirit of the invention as defined in the appended claims.

I claim:—

1. A starting box for dog racing having a door formed of two spring-opened leaves, the conjoined edges of the leaves being cut away to provide an opening through which the dog may project his head, a latch holding the door closed, and means for releasing the latch.

2. A starting box for dog racing having a door, a spring urging the door to an open position, means holding the door closed comprising a pivoted latch, an upwardly bowed member attached at one end to said latch, a contractile spring engaging the rear portion of the member to urge it downward to thereby urge the latch upward, an electrically released keeper holding the rear end of said member upward, the keeper being pivoted for oscillation in a vertical plane, a member disposed in the path of said keeper and preventing downward movement in a vertical plane, an electro-magnet, and an armature acting when the electro-magnet is energized to release said member and permit the keeper to shift.

In testimony whereof I hereunto affix my signature.

ALFRED EDWARD BLAND.