

May 25, 1937.

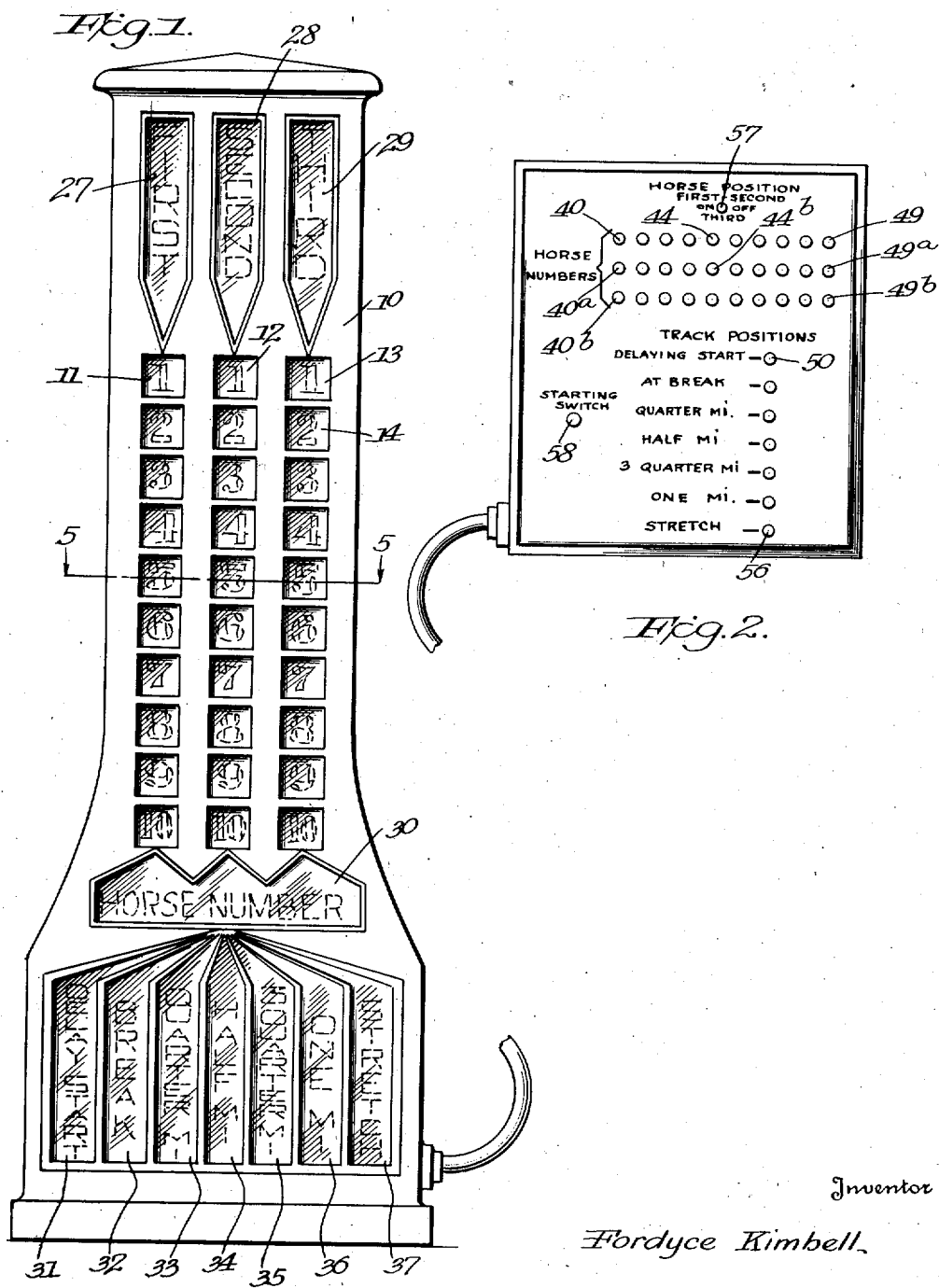
F. KIMBELL

2,081,822

ANNUNCIATOR FOR HORSE RACES

Filed June 11, 1936

3 Sheets-Sheet 1



Inventor

Fordyce Kimbell

By

Cushman, Arby, Cushman,
Attorneys

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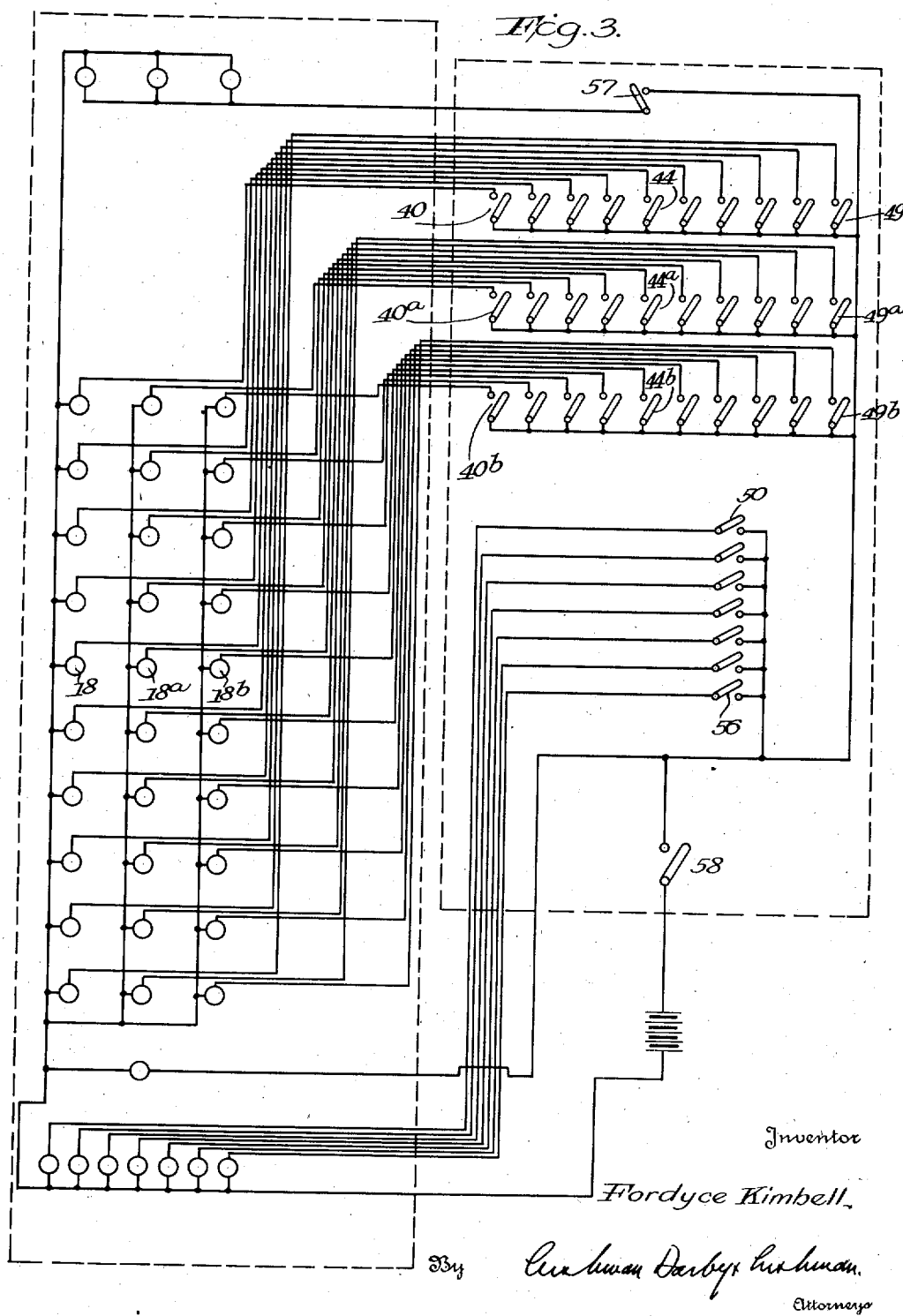
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Fig. 4.

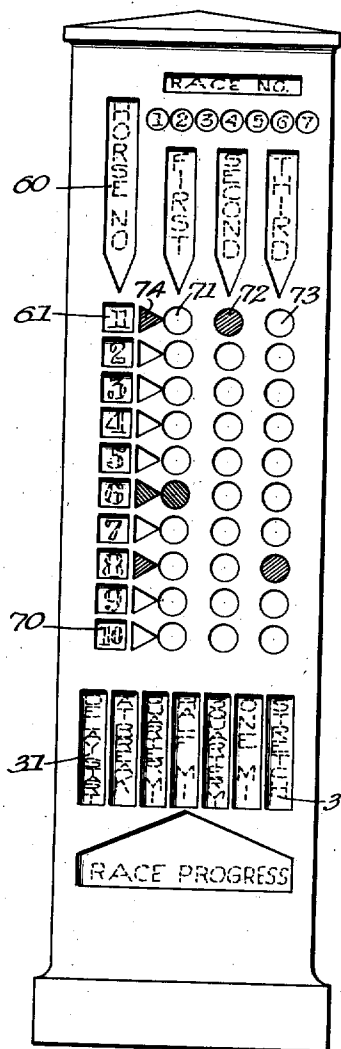


Fig. 5.

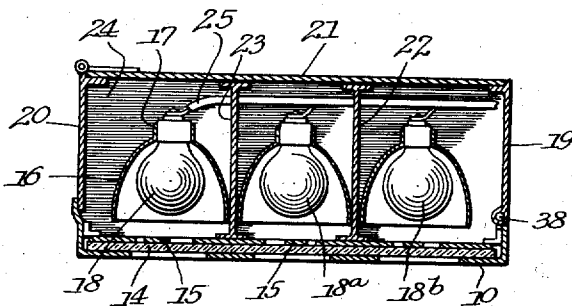
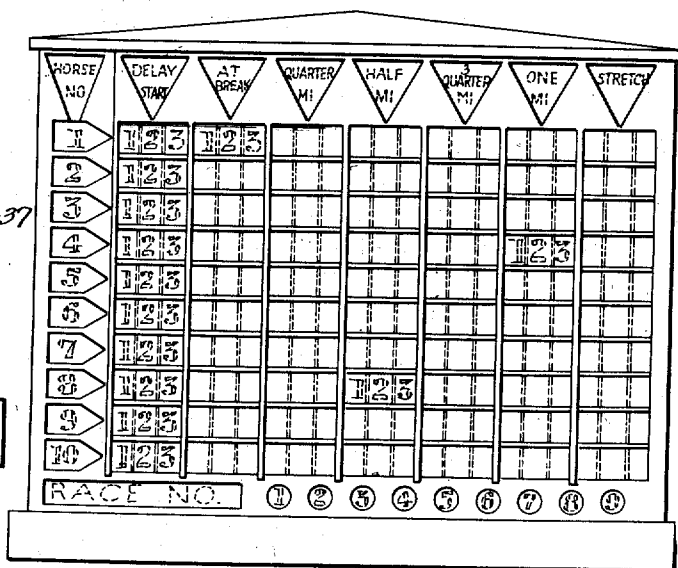


Fig. 6.



Inventor

Fordyce Kimbell,

By Cushman Harby Cushman.

Attorneys

UNITED STATES PATENT OFFICE

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ANNUNCIATOR FOR HORSE RACES

Fordyce Kimbell, Miami, Fla.

Application June 11, 1936, Serial No. 84,748

7 Claims. (Cl. 177—384)

This invention relates to an annunciator for horse races, or the like. More particularly, the invention is concerned with a novel type of apparatus, adapted for use at race tracks, to indicate to the patrons of the track, the progress of the various horses while the race is being run.

It is a well known fact that it is extremely difficult for the patrons at a horse race to follow the progress of the various horses while the race is going on. At the larger tracks throughout the country, the race tracks are one mile in circumference, and except when the horses are directly in front of the grandstand, the patrons cannot distinguish which horse is leading the race and which ones are trailing behind. This difficulty is particularly apparent when the horses are rounding a turn and when they are closely bunched together. Also, the confusion and excitement which are always attendant upon the running of an important race further tend to obscure the happenings on the track. In consequence of these factors, many patrons do not know what has happened until the race has been finished, and the winning numbers are posted on the official board. This lack of knowledge materially detracts from the enjoyment of the public at the races.

It is an object of the present invention to provide an annunciator board, placed at a position of vantage where it will be visible to all, adapted to indicate the progress of the race from the time that the horses go to the barrier, until the race is completed.

It is a further object of the invention to provide electrical means which will indicate the numbers and relative positions of the three leading horses during the entire progress of the race.

It is a further object of the invention to provide means which will indicate, from time to time, what portion of the race has been run. In other words, the annunciator of the present invention will indicate the break, the first quarter, the half, the third quarter, the mile, and the stretch drive in a long race. In short races, only certain of these indications will be used, for instance, the break, the quarter mile, the half mile, and the stretch, or distances in furlongs.

It is a further object to combine with the means for indicating the progress of the race, the relative positions of the leading horses at each stage.

It often happens that considerable difficulty is encountered by the race starter in getting all of the horses properly lined up in front of the barrier before the race can be started. This delay is usually occasioned because of the fractious antics

of one or two of the horses. The patrons are always anxious to know which horse or horses are causing the delay, and it is an object of the present invention to give this information by my novel annunciator. In accordance with the present invention, if substantial delay is encountered in getting the horses off, a special signal will be displayed on the annunciator, together with the number or numbers of the offending horses.

It is a further object of the invention to provide control means for the annunciator so arranged that a person or persons positioned at an advantageous place to see the progress of the race, may operate the same to control the signals or indications appearing on the annunciator, thereby to inform the public of the progress of the race. Preferably, this control means will comprise a keyboard provided with a plurality of buttons which the operator may depress to effect the illumination of corresponding indicating lights on the annunciator board. If desired, instead of having the annunciator controlled from a single point of vantage, by a single observer, separate control boards may be placed at appropriately spaced points around the track, so that the patrol judges at those points may indicate the respective positions of the leading horses and also the point reached in the progress of the race.

In the accompanying drawings, a plurality of forms of annunciators are shown, together with one appropriate control circuit, but it must be understood that the invention is not confined to the details of construction shown or to the specific forms of annunciators or circuits, but covers any similar devices coming within the scope of the appended claims or their equivalents.

In the drawings:

Figure 1 is a front elevational view of an annunciator board.

Figure 2 is a plan view of a control panel therefor.

Figure 3 is a circuit diagram showing, diagrammatically, one manner of wiring the annunciator board and control panel of Figures 1 and 2.

Figure 4 is an elevational view, corresponding to Figure 1, showing a modification.

Figure 5 is a cross sectional view taken on lines 5—5 of Figure 1, and

Figure 6 is a front elevation of a further modification.

The annunciator of the present invention, as shown in Figures 1 and 5, may take the form of a tall, relatively narrow signboard which may conveniently be placed in the infield of the race track. It comprises a front casing section 10 provided

with a plurality of columns of apertures 11, 12, 13. Behind the face plate 10 and closing the apertures 11, etc., there is positioned a ground glass plate or the like 14. Instead of using a single plate 14, as indicated in Figure 5, individual plates may be used for each aperture. Behind the translucent plate, I provide masks or stencils 15 which are cut to permit the passage of light over predetermined patterns to indicate, on the ground glass plates, appropriate numbers, as indicated in Figure 1. Behind the masks, any conventional form of reflector 16, sockets 17 and bulbs 18 may be positioned.

In addition to the front wall 10, the annunciator comprises side walls 19, 20 and a rear wall 21. Moreover, the interior space defined by these walls is divided by vertical partitions 22, 23 and horizontal partitions 24 to provide a plurality of isolated cells within the body of the annunciator. Each cell contains a bulb, socket and reflector and an electric wire 25 leading to the socket to energize the bulb. The metallic frame of the annunciator constitutes a ground return common to all of the bulbs.

Above the three columns of apertures 11, 12, 13, there are positioned additional electrically illuminated indicating means to designate the columns therebelow as, respectively, First, Second and Third. These indicating means may take the form of elongated, arrow-like, illuminated glass plates 27, 28, 29. Behind each plate there is positioned a bulb similar to the bulbs disclosed in Figure 5.

Below the three columns of apertures, I may position, if desired, some appropriately illuminated indicia, to indicate the character of the data which will appear thereabove in the columns, as shown at 30, Figure 1.

At some other appropriate place on the face of the annunciator board, such as at the bottom thereof, additional apertures will be provided which may be illuminated to indicate the progress of the race. For instance, and as indicated at 31, an illuminable plate may be provided to indicate that there is a delay at the start of the race. A similar plate 32 may be positioned adjacent thereto, to indicate the "break" of the race. Additional plates 33, 34, 35, 36 and 37 may be provided to indicate when the horses have reached the quarter mile, the half mile, the three quarter mile post, the one mile post and the stretch. Separate illuminating means will be provided for each of these panels, and consequently the panels will be illuminated respectively, when the horses break from the barrier; when the quarter mile, half mile, three quarter mile and one mile posts have been passed. As the horses come down the stretch, the final panel will be illuminated to indicate that fact.

As indicated in Figure 5, the front face 10 of the annunciator board is preferably hinged at one side, as at 38, so that it may be swung open to permit access to the interior thereof. This action will also make it possible to change the stencils behind the apertures 11, 12, etc., and the panels 31-37. For instance, in a short race, it might be desirable to change the panels which read "Quarter mile", "One mile", to appropriate furlong indicia. Such substitution can be readily accomplished.

The control panel shown in Figure 2 comprises a plurality of buttons 40, 40a, 40b-49, 49a, 49b, each adapted to illuminate one of the lights behind the apertures in the columns 11, 12, 13. Preferably these buttons in each horizontal row

are interconnected by mechanism of a well known type, so that when any one button is depressed to complete a circuit to a particular light bulb, any other button in the same row which has been previously depressed, will immediately be raised to break the circuit leading to the bulb which it controls. Circuit makers and breakers of this type are well known in the automatic telephone art.

The control panel includes another series of buttons 50-56, likewise mechanically interconnected, which control the panels 31-37. Additional, independent control buttons 57, 58 are also provided for purposes described below. The switches controlled by these buttons are independent of the others and are not mechanically connected thereto.

In the circuit diagram disclosed in Figure 3, the switches 40, 40a, 40b are diagrammatic representations of the buttons bearing the same reference characters in Figure 2. Switch 40 will energize the bulb behind the stencil 15 to illuminate the ground glass plate 14 in the uppermost aperture in column 11, with the figure "1", under the panel reading "First". Thus, if horse number 1 is running first in the race, switch 40 will be closed and the number "1" will be illuminated in the aperture under the legend "First". On the other hand, if horse number 1 should be running third, switch 40b would be closed, whereupon current would flow to the bulb behind the uppermost aperture in the column 13 to illuminate a figure "1" under the legend "Third".

If horse number 5 should be running either first, second or third, the button 44, 44a or 44b would be pressed, closing the corresponding switch. As indicated by the circuit diagram, Figure 3, the appropriate light 18, 18a, 18b would be illuminated to indicate that fact.

The switches 50-56, shown in Figure 3, are diagrammatic representations of the circuit makers and breakers controlled by the buttons 50-56 of Figure 2. Switch 50 controls the flow of current to the light behind the panel 31, marked "Delay Start", Figures 1 and 4. Likewise, the other switches control the lights behind the other panels 32-37.

The switch 58 is a master switch for the entire annunciator board and, additionally, serves to effect the illumination of the light bulbs behind the panel 30.

The switch 57 controls the illumination of the lights behind the panels 27, 28, 29. Usually it will not be desirable to illuminate these panels, bearing the indicia First, Second and Third until the race has started, because prior to that time, the numbers illuminated in the columns 11, 12, and 13 will not indicate the positions of the horses, but, on the other hand, will announce the fact that certain horses are delaying the start.

From the above description, the method of operation of the invention, as disclosed in Figures 1, 2, 3 and 5, will be apparent to one skilled in the art. An operator positioned at a point of vantage will manipulate the buttons on the control panel, to indicate the respective positions of the three leading horses during the progress of the race. He will press a button on the top row of buttons (Fig. 2) corresponding to the number of the horse which is leading the race at any particular time. In the left-hand column 11 of apertures on the face of the annunciator board, a corresponding number will be brightly illuminated, and all of the other numbers in that column will be dark and invisible. Simulta-

neously, he will depress a button in the middle row bearing a number corresponding to the number of the horse that happens to be running second, and a corresponding number will be illuminated in the second column 12 of apertures. One button in the lowermost row will also be depressed to indicate which horse is running third. During the progress of the race, and as the respective positions of the horses change, different buttons will be depressed. When a new button in a horizontal row is depressed, all of the other buttons in that row will be raised, by automatic means of the type referred to above. As the horses pass the various positions on the track, the various buttons 50-56 will be depressed to indicate the progress of the race.

Any number of annunciator boards of the type described in the present application may be connected in parallel to a single control panel, and, a plurality of control panels may be used to control one or more annunciator boards. For instance, it might be desirable to place several of the annunciator boards in the infield, so that they could be seen by all of the patrons of the track. Additional boards might be placed in the paddock and near the mutual betting windows, or at other convenient places at the tracks. As suggested above, the additional control panels might be placed at spaced points around the track, to be operated by the patrol judges who are positioned so close to the track that they can easily tell the exact positions of the horses as they pass their respective patrol posts.

The form of the invention disclosed in Figure 4 is different only in its arrangement of indicia. Under an appropriately illuminated panel 60, bearing a convenient legend such as "Horse Number", there is arranged a vertical row of apertures 61-70, each of which is adapted to be illuminated to indicate the numbers of the horses participating in the race. Thus, if ten horses were scheduled to start in the race, and all actually started, each of the apertures would be illuminated, and the numbers 1 to 10 inclusive, would be visible. However, if certain horses, for instance numbers 3, 7 and 9 were scratched, and did not start, the corresponding numbers would not be illuminated. Adjacent the column of numbers under the panel 60, this form of the invention contemplates the use of three additional rows of lights, 71, 72, 73. Above each of these rows there may be illuminated legends to indicate First, Second, Third. Lights behind these apertures will be illuminated to indicate that horses bearing the numbers corresponding to the numbers adjacent thereto in column 60, are running respectively first, second, or third and these lights will change as the positions of the horses change during the course of the race. A fourth column of apertures 74, may be provided, between the column 60 and the column 71, to indicate that the horse bearing the number adjacent thereto is running "in the money". This may be effected, for instance, by connecting the bulb behind each aperture in the column 71 in series with the several bulbs adjacent thereto in the columns 71, 72, 73, between those bulbs and a common ground return connection to the annunciator frame.

The panels 31-37 in the annunciator of Figure 4 correspond with similar panels in the first form of the invention, and need not be further described.

The operation of this form of the invention will be substantially the same as described above in connection with the form shown in Figures 1 to 3.

The advantage in the alternative form is that the numbers of the participants in the race are constantly illuminated, and independent indicating means are provided to show the respective positions of the three leading participants.

In Figure 6, a further modification is shown, at the left of the annunciator board under the legend "Horse No.". The numbers of the starters will be illuminated. Under successive columns headed "Delay start", "Break", "One quarter mile", "One half mile", "Three quarter mile", "One mile", "Stretch", spaces are provided for the illumination of the horses running first, second and third. For instance, if horse number 3 is leading at the break, under the legend "Break", opposite horse number 3, number 1 will be illuminated. If horse number 10 is running second at that point, number 2 will be illuminated under "Break" in the area horizontally aligned with horse number 10. This system is carried out throughout the entire progress of the race by a control board somewhat similar to that shown in Figure 2, but necessarily containing a duplication of the buttons and switches disclosed therein.

In the three forms of annunciator shown in the accompanying drawings, the signals and the like are arranged for a ten horse race. This figure is entirely arbitrary, and the invention is not limited to any particular number. Obviously, it might be desirable, at certain tracks where the number of entries in many of the races is high, to increase the size of the annunciator board to accommodate the maximum number of starters.

The invention may be embodied in many other forms of apparatus and all such modifications as come within the scope of the appended claims or their equivalents must be considered to be included in my invention.

I claim:

1. An annunciator for horse races comprising means for indicating the numbers of the three leading horses in a race and their respective running positions, means for changing the numbers and positions indicated by said means to correspond to changes in the numbers and positions of the leading horses during the progress of the race, and additional means for indicating, from time to time, the portion of the race completed during the progress of the race.

2. An annunciator for horse races comprising means for selectively illuminating and indicating numbers corresponding to the numbers of the three leading horses during the progress of a horse race, additional means for illuminating signals associated with each of the illuminated numbers to indicate the relative positions of the horses corresponding to said numbers, and means for selectively and successively illuminating independent indicating means to show the progress of the race, from time to time, during the actual running of the race.

3. An annunciator for horse races comprising at least three sets of selectively illuminable numbers, each number of a set corresponding to the number of a different horse in a race, an indicia adjacent each set indicating the running positions respectively of first, second and third, electrically controlled means for illuminating a number in one set to indicate the number of the horse running in the leading position in the race at a predetermined time, and similar means for illuminating a number in each of the other sets to indicate the numbers of the horses running in other positions in the race, said control

means being operable during the progress of the race to change the numbers appearing in said sets as the numbers of the horses in said positions change during the progress of the race.

4. An annunciator in accordance with claim 3 comprising an additional series of signals indicative of the portion of the race completed, from time to time, during the progress of the race, and electrical control means for said series of signals.

5. An annunciator for horse races comprising a plurality of electric light bulbs arranged in a vertical column and each adapted to illuminate and thereby indicate a number corresponding to the number carried by a different horse in a race, and a plurality of other electric light bulbs horizontally aligned with the aforesaid bulbs and also arranged in a plurality of vertical columns, the bulbs in the last mentioned columns serving to indicate the relative positions of the horses bearing the numbers illuminated and indicated by the adjacent bulbs in the first column, and independent circuit control means for each of said bulbs, whereby the numbers of the three leading horses may be indicated by the illumination of three of the bulbs arranged in the first column, and the position of each horse, whether first, second or third, may be indicated by the illumination of horizontally aligned bulbs in the other vertical columns of bulbs.

6. An annunciator for horse races comprising a casing having a plurality of translucent windows in its front face arranged in horizontal rows and vertical columns, an independently controllable light behind each window, and a stencil mask between each window and its light, whereby the illumination of any light serves to project the figure of a number corresponding to its stencil mask upon and through the adjacent window, said masks and their figures being obscured by said window when said lights are extinguished, the numbers on the stencils behind the windows in the horizontal rows being the same but being different progressively from top to bottom in the vertical columns, the columns serving to indicate respectively first, second and third, and the rows serving to indicate the numbers of the different horses in a race, whereby the illumination of any particular light will project a number through a window to indicate that the horse bearing that number is running respectively first, second or third.

7. An annunciator for indicating the running positions of the three leading horses in a race during the actual progress of the race at predetermined times therein, comprising indicia constantly visible during the progress of the race indicating respectively first, second and third running positions, a plurality of sets of numbers, one set associated with each of the aforesaid indicia, each set including a number corresponding to each different horse in the race, an additional series of indicia selectively illuminable to indicate the portion of the race completed, and control means to make visible selectively the particular number in each set corresponding to the number of the horse running in the position indicated by the associated first-mentioned constantly visible indicia, said control means serving to illuminate the corresponding illuminable indicia of said additional series to indicate the portion of the race completed when the numbers of the sets are made visible.

FORDYCE KIMBELL.

DISCLAIMER

2,081,822.—*Fordyce Kimbell*, Miami, Fla. ANNUNCIATOR FOR HORSE RACES. Patent dated May 25, 1937. Disclaimer filed January 12, 1939, by the assignee, *United States Describer, Inc.*

Hereby enters this disclaimer to that part of the patent covered by claim 3 thereof.

[*Official Gazette February 7, 1939.*]

means being operable during the progress of the race to change the numbers appearing in said sets as the numbers of the horses in said positions change during the progress of the race.

5 4. An annunciator in accordance with claim 3 comprising an additional series of signals indicative of the portion of the race completed, from time to time, during the progress of the race, and electrical control means for said series of signals.

10 5. An annunciator for horse races comprising a plurality of electric light bulbs arranged in a vertical column and each adapted to illuminate and thereby indicate a number corresponding to the number carried by a different horse in a race, and a plurality of other electric light bulbs horizontally aligned with the aforesaid bulbs and also arranged in a plurality of vertical columns, the bulbs in the last mentioned columns serving to indicate the relative positions of the horses bearing the numbers illuminated and indicated by the adjacent bulbs in the first column, and independent circuit control means for each of said bulbs, whereby the numbers of the three leading horses may be indicated by the illumination of three of the bulbs arranged in the first column, and the position of each horse, whether first, second or third, may be indicated by the illumination of horizontally aligned bulbs in the other vertical columns of bulbs.

25 6. An annunciator for horse races comprising a casing having a plurality of translucent windows in its front face arranged in horizontal rows and vertical columns, an independently controllable light behind each window, and a stencil mask between each window and its light, whereby the illumination of any light serves to project the figure of a number corresponding to its stencil mask upon and through the adjacent window, said masks and their figures being obscured by said window when said lights are extinguished, the numbers on the stencils behind the windows in the horizontal rows being the same but being different progressively from top to bottom in the vertical columns, the columns serving to indicate respectively first, second and third, and the rows serving to indicate the numbers of the different horses in a race, whereby the illumination of any particular light will project a number through a window to indicate that the horse bearing that number is running respectively first, second or third.

5 7. An annunciator for indicating the running positions of the three leading horses in a race during the actual progress of the race at predetermined times therein, comprising indicia constantly visible during the progress of the race indicating respectively first, second and third running positions, a plurality of sets of numbers, one set associated with each of the aforesaid indicia, each set including a number corresponding to each different horse in the race, an additional series of indicia selectively illuminable to indicate the portion of the race completed, and control means to make visible selectively the particular number in each set corresponding to the number of the horse running in the position indicated by the associated first-mentioned constantly visible indicia, said control means serving to illuminate the corresponding illuminable indicia of said additional series to indicate the portion of the race completed when the numbers of the sets are made visible.

15 20 25 30 35

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