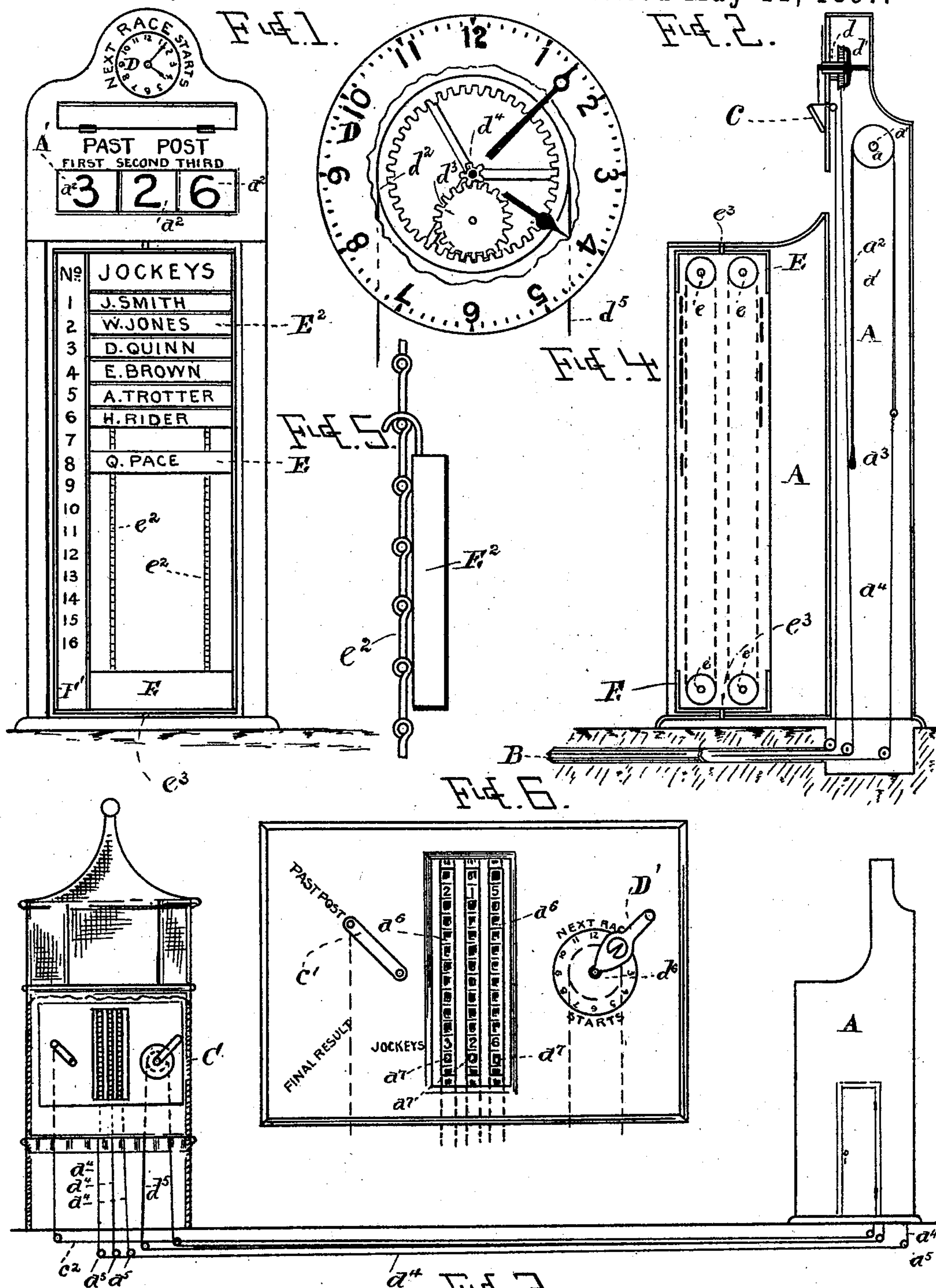


B. E. HARRIS.
RACE TRACK ANNUNCIATOR.

Patented May 11, 1897.



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UNITED STATES PATENT OFFICE.

BEN E. HARRIS, OF SAN FRANCISCO, CALIFORNIA.

RACE-TRACK ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 582,284, dated May 11, 1897.

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To all whom it may concern:

Be it known that I, BEN E. HARRIS, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improved Race-Track Annunciator, of which the following is a specification.

My invention relates to the class of devices for displaying to spectators information respecting races.

Described generally, it consists of a frame or case provided with means for displaying information relative to a race just finished and also information concerning the forthcoming race.

The object of my invention is to provide a simple and efficient device whereby information in regard to horse-races and other events of a similar character may be displayed to spectators. It is adapted to be operated from the judges' stand or other suitable location at a distance from the annunciator. I accomplish these objects by means of the devices illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the device. Fig. 2 shows a cross-section. Fig. 3 shows a view of the track diagrammatically, portions of the view being in sections to more clearly illustrate it. Fig. 4 is a view of the clock-dial, portions being broken away to show the operating mechanism. Fig. 5 shows a detail of the jockey-board chain and name-board attached thereto. Fig. 6 shows an enlarged view of the indicator-board.

Referring to the accompanying drawings, A is a frame or case provided with a series of loose rollers a upon a shaft a' . Upon these rollers a are supported strips or bands of canvas a^2 or other suitable material, one to each roller. Painted or otherwise upon each of these strips is a vertical column of figures or characters. Each of these strips is provided with a weight a^3 , the other end of the strip being attached to a wire, cord, or other suitable operating-line a^4 . Pulleys a^5 guide the cord through a suitable conduit B under the track into the judges' stand C. A sufficient length of chain, leather, or other suitable strap is attached to the line a^4 in the judges' stand, which passes over a pulley. The free end of the chain or strap is provided

with a weight similar to a^3 . At suitable intervals characters corresponding to those upon the strips a^2 are attached to or marked upon the chain or strap a^6 . Pins a^7 are suitably located to engage with the chains or straps and hold them in desired position.

In the upper portion of case A, slightly below rollers a , is an aperture A' of sufficient width to display one figure and of sufficient length to display portions of all of the strips. Above this aperture are marked the words "First," "Second," "Third," and above these the words "Past post." Immediately above this is located a hinged plate or board c , bearing upon its side unexposed in the views of the drawings the words "Final result." To this board c is attached a wire or cord c^2 , suitably led and guided to the judges' stand, where it is attached to a pivoted operating lever or handle c' , at the extremities of the motion of which are respectively the words "Past post" and "Final result."

Above the "Final result" board is located a clock-dial D, around which are displayed the words "Next race starts." This dial is provided with movable hour and minute hands. These hands are secured, respectively, upon an outer sleeve d and an inner shaft d' . The shaft d' is provided with an internal gear-ring d^2 , having an external circumferential driving-groove. The gear-ring meshes into an idler-gear d^3 , which in turn meshes into a pinion d^4 , secured upon the sleeve d . The pinion d^4 and the internal gear d^2 are suitably proportioned to turn twelve to one. A driving-cord d^5 , suitably guided, connects the annular gear d^2 with a driving-pulley d^6 and an operating crank-handle D' . Concentric to pulley d^6 and crank-handle D' are marked figures corresponding to those on the clock-dial.

In the front portion of the frame or case A is a pivoted and rotatable frame E. It is provided with a vertical column of figures or characters F' , and also with an upper and lower rotatable shafts e and e' , respectively. Upon the upper shaft are secured two sprocket-wheels some little distance apart, and upon the lower shaft similar sprocket-wheels similarly located. An endless chain e^2 passes around and connects each pair of corresponding upper and lower sprocket-wheels. A simi-

lar duplicate arrangement of sprocket-wheels and chains is provided in the rear of that just described. Boards or plates E^2 are provided, having hooks at the upper edge, adapted to engage with the links of the chain e^2 , as shown in Fig. 5. The frame E rests upon and is supported by vertical pivots e^3 , upon which it is rotatable.

The operation of the device is as follows:
 10 Assuming that a race has just been run, it is desirable to announce to the spectators and others interested information on the following points: first, the order in which the first three horses passed the winning-post; second,
 15 in the event of fouling or other circumstance which calls for action by the judges, the final result; third, the time at which the next race will start; fourth, the names and numbers of the jockeys for the next race. With regard
 20 to the first three matters it is desirable that they shall come direct from the judges' stand and be under their immediate control. With the device illustrated in the accompanying drawings these requirements are arranged for
 25 in a simple and efficient manner. By moving the chain a^6 up or down the strip or band a^2 is moved up or down, and by hooking the link next below a number upon the chain upon the pin a^7 the corresponding number upon
 30 the strip a^3 is displayed through the aperture.

In the event of a foul, or if for any other reason the first result is changed, then the lever c' is moved down to the "Final result" position, thus slacking the line c^2 and permitting the board c to fall, thereby covering the words "Past post" and disclosing the words "Final result."

To set the hands upon the clock-dial, the lever D' is moved around the indicator-dial
 40 to the position required, thereby rotating the pulley d^6 and operating line d^5 , and thus the clock-hands, which, being geared together in the relation of twelve to one, must always show a proper relative position of the hands.

45 The names of the jockeys having been previously painted upon the boards E^2 and hung upon the inner set of chains by an attendant prior to the finish of the race, the frame E is rotated upon its axis, thereby displaying the
 50 names of the jockeys in line with their proper number in the column on the left. If it is thought desirable, this number-column may be made a fixed portion of the frame, a corresponding set of figures being painted inside
 55 for the guidance of the attendant who arranges the jockey-board.

As it is desirable that the names and numbers of the jockeys be legible at several hundred feet distance, they must be painted in
 60 letters of some considerable size, and as not infrequently there may be from twelve to twenty starters, whose names occupy a space of from ten to twenty feet, the chains are therefore provided to facilitate the placing
 65 of the jockeys' names in a position beyond the unaided reach of an attendant.

Though the wires are shown as being led

under the ground, it may not always be considered desirable to so place them, in which case they can be run overhead. The device
 70 may also form a part of the judges' stand or otherwise and be operated without the intervention of lines.

For the convenience of spectators in locations rendering view of a single-faced exposure of the annunciator difficult it may be constructed with two or more exposures at any suitable angle to each other and the moving parts connected to each other by any of the well-known mechanical devices for like
 80 purposes, so that the various exposures will work together in unison.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A race-track annunciator comprising a case or frame provided with movable bands or strips having figures or characters thereon, and a display-aperture through which a portion of each band or strip is visible; means
 90 for independently moving each band or strip, and figures or letters referring the numbers or letters on the strip to the positions of contestants as they pass the winning-post and movable bands which are provided with detachable name-plates.

2. A race-track annunciator comprising a case or frame provided with movable bands or strips having figures or characters thereon, a display-aperture in said case through which a portion of each band or strip is visible; means
 100 for independently moving each band or strip, and a movable device having characters or lettering thereon, referring the visible numbers or characters on the strips to the final result of a race as determined by the judges, and movable bands which are provided with detachable name-plates and a series of numerals in proximity thereto referring to the name-plates.

3. A race-track annunciator comprising a case or frame provided with movable bands or strips having figures or characters thereon, and a display-aperture through which a portion of each band or strip is visible; means
 110 for independently moving each band or strip; letters or characters upon the case referring the visible letters or characters on the bands or strips to positions of the contestants; a clock-dial upon the frame or case having
 120 movable hands and words or characters referring the positions of the hands to the starting-time of the next race, and vertically-movable bands which are provided with detachable name-plates and a vertical column of numerals in proximity thereto referring to the name-plates.

4. A race-track annunciator comprising a case or frame having a display-aperture and movable figures or characters in said aperture; letters or characters upon the case or frame referring the movable ones to positions of contestants; a clock-dial upon the case or frame having movable hands and words or

characters referring the positions of the hands to the starting-time of the next race; and a reversible frame provided with vertically-movable bands which are provided with detachable name-plates; a vertical column of numerals in proximity and referring to the name-plates.

5. A race-track annunciator comprising a case or frame provided with a clock-dial having movable hands and words or characters referring the position of the hands to the starting-time of the next race; movable bands having figures thereon and a display-aperture through which a portion of each band is visi-

ble; words or characters referring the visible numbers to positions of contestants; means located in the judges' stand or other suitable position for independently operating the clock-hands, the movable bands and the words or characters referring the visible characters on the bands to positions of contestants, and a vertically-rotatable frame provided with movable bands which are provided with detachable name-plates.

BEN E. HARRIS.

Witnesses:

F. W. KELLEY,
CHAS. H. PHILLIPS.