

(No Model.)

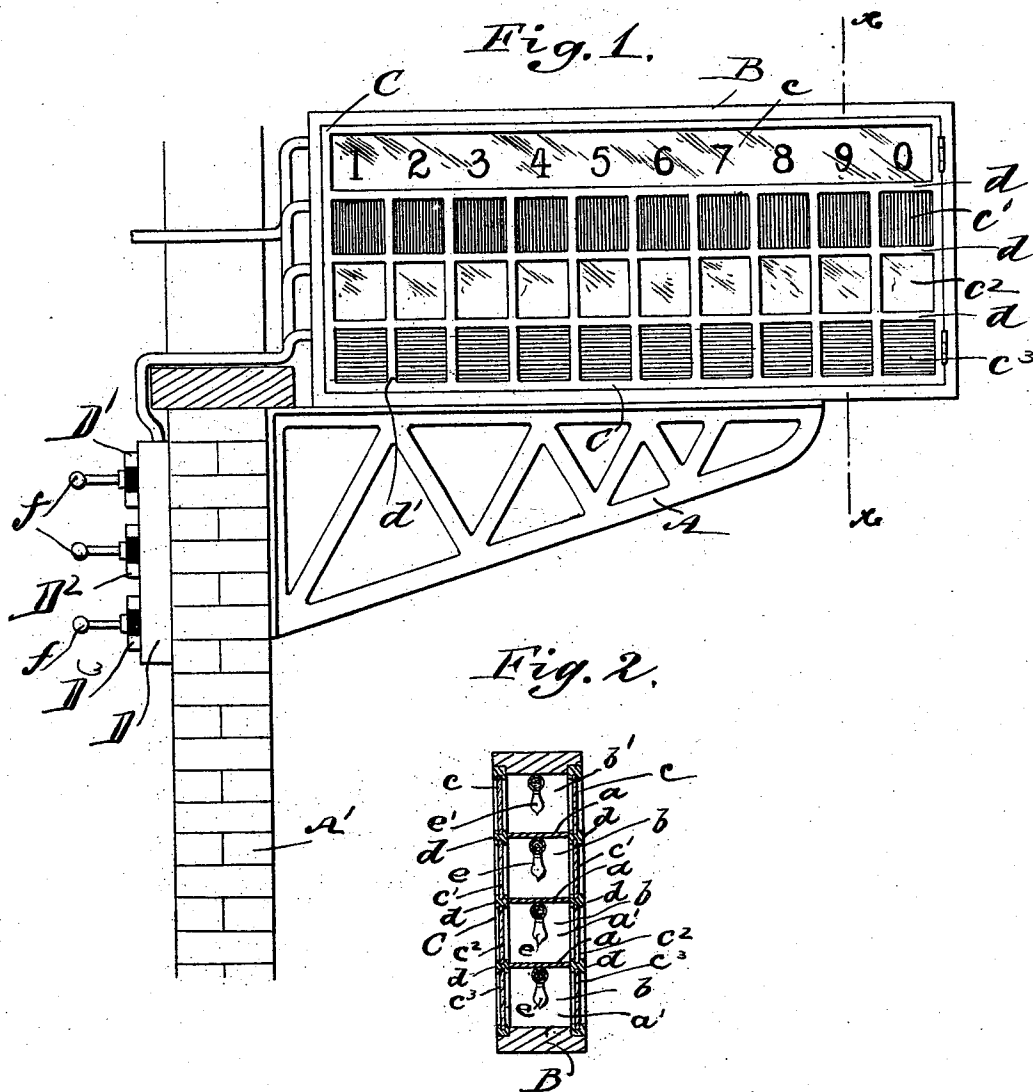
2 Sheets—Sheet 1.

F. WARREN.

APPARATUS FOR SIGNALING VEHICLES BY NUMBERS.

No. 546,499.

Patented Sept. 17, 1895.



WITNESSES:
Samuel J. Deane
Henry B. Luff

INVENTOR
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(No Model.)

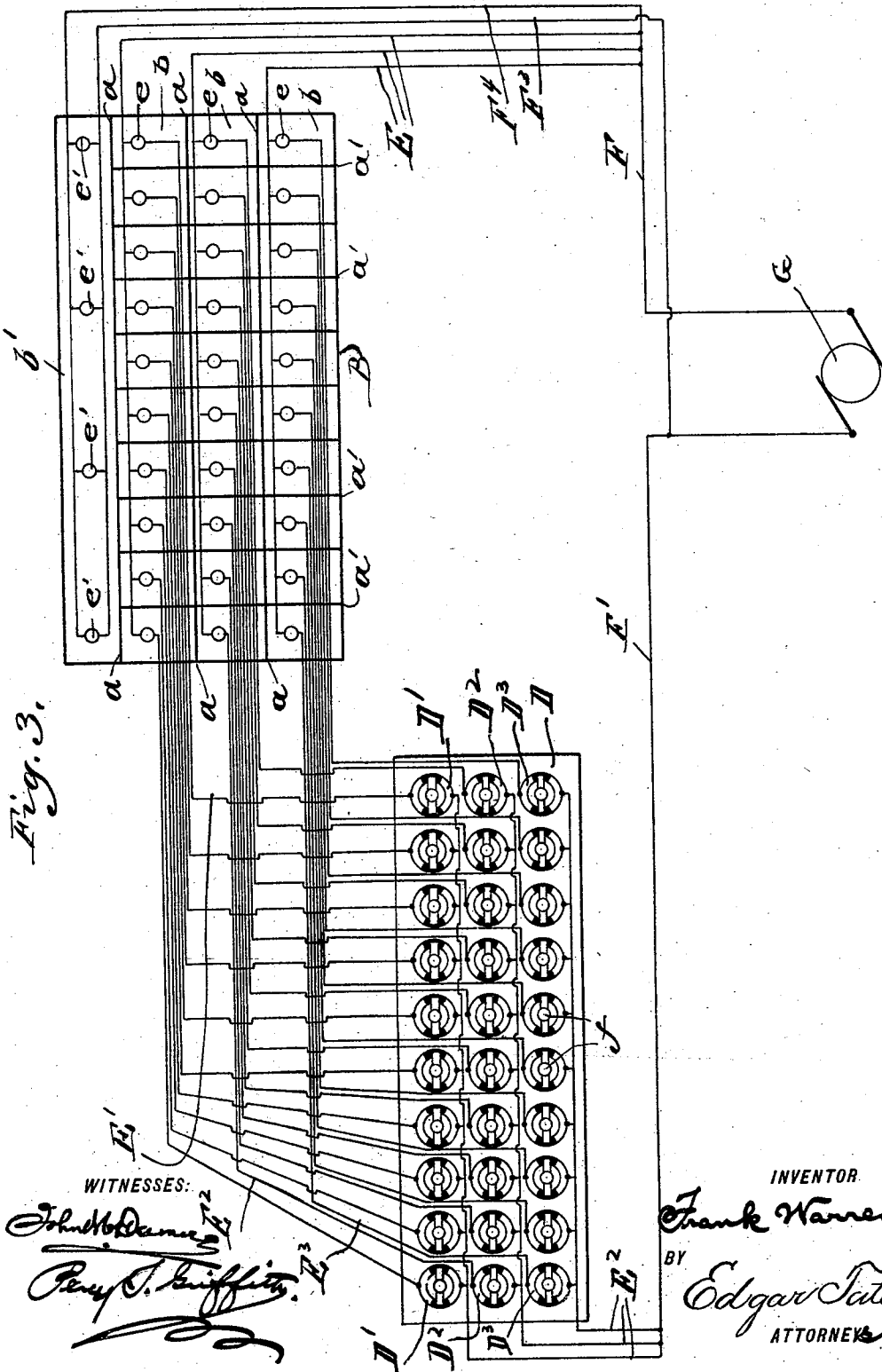
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WITNESSES:

John H. Danner
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UNITED STATES PATENT OFFICE.

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APPARATUS FOR SIGNALING VEHICLES BY NUMBERS.

SPECIFICATION forming part of Letters Patent No. 546,499, dated September 17, 1895.

Application filed January 15, 1895. Serial No. 534,975. (No model.)

To all whom it may concern:

Be it known that I, FRANK WARREN, a citizen of the United States, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Apparatus for Signaling Vehicles by Numbers, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts in all the figures.

This invention relates to apparatus for calling or signaling carriages, particularly for use in connection with theaters, restaurants, assembly-rooms, and like establishments where a large number of vehicles invariably surround the exit after the termination of the entertainment, and which usually require to be orally called or hailed as the owners or passengers thereof desire to leave therein. Great inconvenience and confusion necessarily result from such calling of the vehicles; and the object of my invention is to provide means for signaling the carriages by number electrically displayed, and whereby such number will be exhibited to all the drivers or coachmen waiting, who will, upon seeing the either permanent or temporarily provided number of their vehicles displayed, immediately draw up before the exit, or if the numbers are displayed in rapid rotation take their places in proper order upon a line.

The invention consists in the novel construction and arrangement of parts, whereby the above-mentioned and other desirable results are attained and hereinafter more fully described.

Referring to the drawings, Figure 1 is a front elevation of a device embodying my invention secured to the wall of a building to be conspicuously displayed therefrom. Fig. 2 is a vertical section thereof upon the line $x x$. Fig. 3 is a diagrammatic view of the electrical circuits and switches for operating the device.

In the practice of my invention I secure to a suitable support or beam A, projecting from the wall of the building A', a sign-board or box B, divided by longitudinal horizontal partitions a and vertical partitions a' into three series of ten compartments b with a continu-

ous longitudinal compartment b' at the top. Upon each side of the box are secured doors C, hinged at one end, having in the top thereof, aligning with the upper compartment b' , continuous longitudinal strips or panes of glass c , the remainder of said doors beneath the panes c being divided by longitudinal strips d aligning with the partitions a and by intermediate vertical strips d' aligning with the partitions a' to form a framework comprising a plurality of hollow squares, in which are inserted three longitudinal series of glass panes c' c^2 c^3 , each series being definitely colored—usually the series c' red, the series c^2 white, and the series c^3 blue—said series comprising each ten panes corresponding to the compartments b . Upon the upper strips c are marked the numerals 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0, in alignment with or immediately above the panes of each series.

Within each of the three series of lower compartments b are suspended, from the partitions a , ten incandescent lamps e , opposite each of the colored panes. Similar lamps e' of any desired number are suspended from the roof of the box in the upper compartment b' to illuminate the panes c , through the whole of which the light constantly shines throughout the operation.

Within the building I mount in some convenient position a switchboard D, having thereon three longitudinal series of switches D' D^2 D^3 , corresponding in number and position to the series of panes c' c^2 c^3 , and connecting by means of the independent wires E' E^2 E^3 with the respective lamps e in the compartments opposite the panes with which each switch registers in position and series. Return-wires E lead from all of said lamps to a branch F, connecting with the dynamo G, from which extends oppositely a feeder F' , connecting by wires F^2 with all the various switches, thereby completing the circuit.

An auxiliary branch or feeder F^3 extends from the feeder F' to the various lamps e' in the upper compartment b' of the box, of which lamps I have shown four, and a return-wire F^4 leads from said lamps to the wire F, whereby said lamps are included in a constant circuit.

The switches D' D^2 D^3 , which are actuated by handles f , are all normally closed, whereby the lamps e are normally extinguished, and the

various feed and return wires are respectively connected to said switchboard and to the dynamo or main conductor through insulating-tubes *g*, projecting from the sign *B*.

5 The operation of the device will be readily understood from the foregoing description, taken in connection with the accompanying drawings.

10 The numbers upon the pane *c* being constantly visible, and it being desired to display the number of a carriage, the first numeral or figure of the number in question is displayed by illuminating the red pane *c'* immediately beneath the counterpart of said number or
15 figure upon the pane *c*, which illumination is effected by turning on the switch *D'* registering with said pane. The second figure of said number is displayed by illuminating the white pane *c²* immediately beneath the corresponding figure upon the pane *c* by turning on
20 the switch *D²* registering therewith; and the third figure of the vehicle-number, if there be such, is displayed by likewise illuminating the blue pane *c³* beneath said figure through
25 the agency of the corresponding switch *D³*. The number of the carriage being, for example, 135, the red pane *c'* beneath the figure 1, the white pane *c²* beneath the figure 3, and the blue pane *c³* beneath the figure 5 are suc-
30 cessively illuminated. The numbers indicated by the several panes are then read by the various drivers in vertical rotation from the upper panes *c'* downwardly, and the carriage corresponding to the number 135—which
35 may be as with a cab the license-number, or may be determined by checks or tickets distributed to the carriages upon their first arrival at the building—then draws up before the exit, receives its passengers therein, and
40 departs, whereupon the switches are turned off and another number similarly displayed. Not only does the vertical rotation of the figures enable the number to be clearly and definitely
45 determined and read in the proper rotation from both sides of the sign, but, furthermore, by the coloring of the panes the various series are further distinguished. This is particularly the case by the use of the colors red, white, and blue, which are in this
50 country associated in the order named, and thereby convey to the mind certainty that if the figure 1 is red, the figure 3 white, and the figure 5 blue the vehicle number must necessarily be 135.

55 The advantages resultant from the use of the invention will be manifest to all who are conversant with the general class of devices to which the same appertains.

60 I do not confine myself to the exact formation of parts or construction of details herein set forth and illustrated. For instance, I may, in lieu of employing the panes *c*, mark the numerals directly upon the panes *c'* *c²* *c³*, though in such case the employment of the
65 colored panes might not be as practicable, and, furthermore, I believe the particular arrangement shown will convey at all distances

from the sign the clearest impression of the numbers sought to be displayed.

Having thus fully described my invention, 70 what I claim as new, and desire to secure by Letters Patent, is—

1. In an apparatus for signaling vehicles by numbers, a sign box suitably supported, having a continuous longitudinal compartment 75 having transparent sides at the top thereof, and the remainder or lower portion being divided by vertical and horizontal partitions into three series of ten compartments, having transparent sides, doors hinged at one end to 80 each side of the box, having in the tops thereof continuous strips of glass, aligning with the continuous compartment in the top of the box, and the remainder of said doors being divided by longitudinal and vertical strips 85 into spaces corresponding with the three series of vertically aligning compartments, in which are inserted three series of ten glass panes, each series being definitely colored, and the upper continuous strips being provided with the numerals 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, 90 in alignment with or immediately above the panes of each series, a lamp in each of the compartments of each of the series, and a number of lamps in the continuous compartment, and means for lighting the various 95 lamps in each series and in the continuous compartment, and displaying the numbers to designate the various vehicles, substantially as shown and described. 100

2. In an apparatus for signaling vehicles by numbers, a sign board or box, suitably supported and visible upon both sides or faces, and divided by horizontal and vertical partitions into a number of series of vertically 105 aligning compartments, having transparent sides, and provided at the top with a continuous longitudinal compartment, having transparent sides and numbers marked thereon, numbers on said sign so arranged that the 110 vertically aligning compartments designate the same number, lamps in each of said compartments and in the continuous compartment, and a switch board properly located, and a number of switches corresponding in 115 position, and individually connecting with the various lamps, whereby the action of the switches displays the various figures of the vehicle number in vertical rotation, substantially as shown and described. 120

3. An apparatus for signaling vehicles or the like by numbers, which comprises a sign box conspicuously displayed, having a continuous longitudinal compartment in the top 125 thereof, and a number of series of ten compartments below said longitudinal compartments, numbers marked upon said sign, whereby the vertically aligning compartments of the different series indicate the same number, said compartments having transparent 130 panes upon each side thereof, whereby the sign is conspicuous upon both of its faces, lamps secured within each of said compartments, a series of switches corresponding in

number to and communicating individually with each of the lamps of the upper series to display the first figure of the vehicle number, and one or more similar series of switches likewise connecting with the lamps of the lower series, whereby the remaining figure or figures of the number are displayed beneath the same, and said number is arranged in vertical rotation to be visible and corresponding upon both faces of the sign, substantially as shown and described.

4. An apparatus for signaling vehicles or the like by numbers, which comprises a sign conspicuously displayed, having a plurality of series of compartments inclosed by transparent panes visible upon both faces of the sign, each series being distinctively colored, lamps secured in each compartment and normally closed or shut off, a continuous longitudinal compartment at the top of the sign provided with panes to be visible upon both sides, having numerals marked thereon above the vertically aligning compartments of each series, lamps secured within said compartment whereby the same is constantly and wholly illuminated, and a plurality of series of switches individually connecting to the various lamps of the series of compartments, whereby the actuation of the switch of one of said series will illuminate the compartment of the upper series upon the sign corresponding in position thereto, and the actuation of a switch of the remaining series will illuminate the corresponding compartment or compartments of the lower series, whereby the vehicle number is displayed by differently colored lights in vertical rotation, to be visible upon both sides of the sign, substantially as shown and described.

5. An apparatus for signaling vehicles or the like, which comprises a sign, conspicuously displayed and secured upon the outside of a building, consisting of a box divided by longitudinal and vertical partitions into three longitudinal series of ten compartments, each above the other, with a continuous longitudinal compartment at the top, doors hinged to each face of the sign, divided by corresponding partitions into three similar series of spaces or sections, transparent panes inserted in each of said sections, the panes of each series of compartments being correspondingly colored and distinctively from the remaining series, a continuous pane in the top of each of said doors, having numerals marked thereon above the vertically aligning panes, whereby the same are caused to designate the number above, lamps in each of the series compartments, and a plurality of lamps in the continuous compartment at the top whereby the same is constantly and wholly illuminated,

a switch-board secured within the building, having three longitudinal series of switches thereon corresponding in position to the lamps in the series compartments and individually connecting therewith, whereby the actuation of a switch of the upper and lower series illuminates the corresponding lamps of the same series to display the vehicle number in vertical rotation upon the sign by illumination of the colored panes beneath the figures representing said number, substantially as shown and described.

6. An apparatus for signaling vehicles or the like by numbers, which comprises a sign conspicuously displayed upon the outside of a building, consisting of a box divided by longitudinal and vertical partitions into three series of ten compartments one above the other, and an upper continuous compartment, doors hinged to each of the faces of said sign and divided by like partitions into three series of spaces or sections, having glass panes therein, the panes of each series being correspondingly colored and distinctively from the remaining series, a continuous strip of glass at the top of each door, having numerals marked thereon above each compartment of the several series, whereby the vertically aligning compartments are designated by the same number, lamps secured in each of the series compartments, and a plurality of lamps inserted in the upper compartment to wholly illuminate the same, a switch-board secured within the building, three series of switches thereon corresponding to the series compartments of the sign, individual conductors leading from said switches to the lamp corresponding in position therewith, return wires leading from all of said lamps to the dynamo, and a feeder connecting said dynamo to the switches, said switches being normally closed whereby the lamps are normally shut off, and adapted when actuated to display the vehicle number in vertical rotation with the figures thereof in distinctive colors, and branch wires leading from the dynamo, feeder, and return conductor to the lamps of the upper continuous compartment, said branch forming a constant circuit, whereby the lamps in said upper compartment are normally lighted to wholly illuminate the said compartment, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 11th day of January, 1895.

FRANK WARREN.

Witnesses:

PERCY T. GRIFFITH,
L. MULLER.