No. 721,337. PATENTED FEB. 24, 1903.

I. T. SMITH.

CARRIAGE CALL BOX.

APPLICATION FILED JAN. 10, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

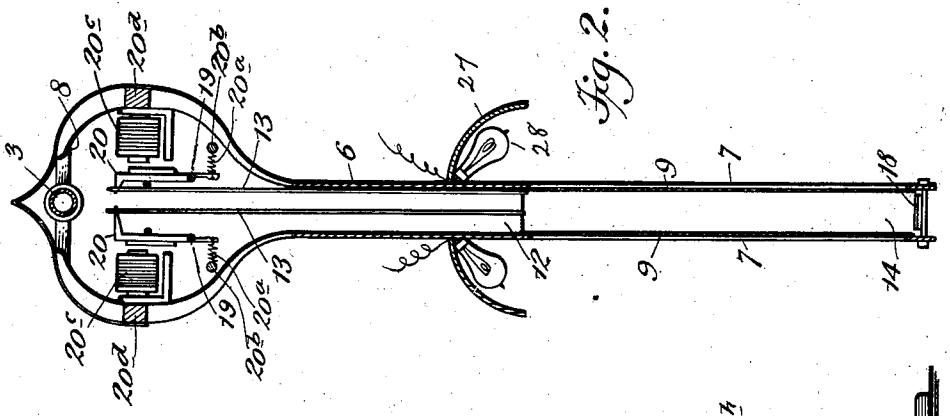


Fig. 2.

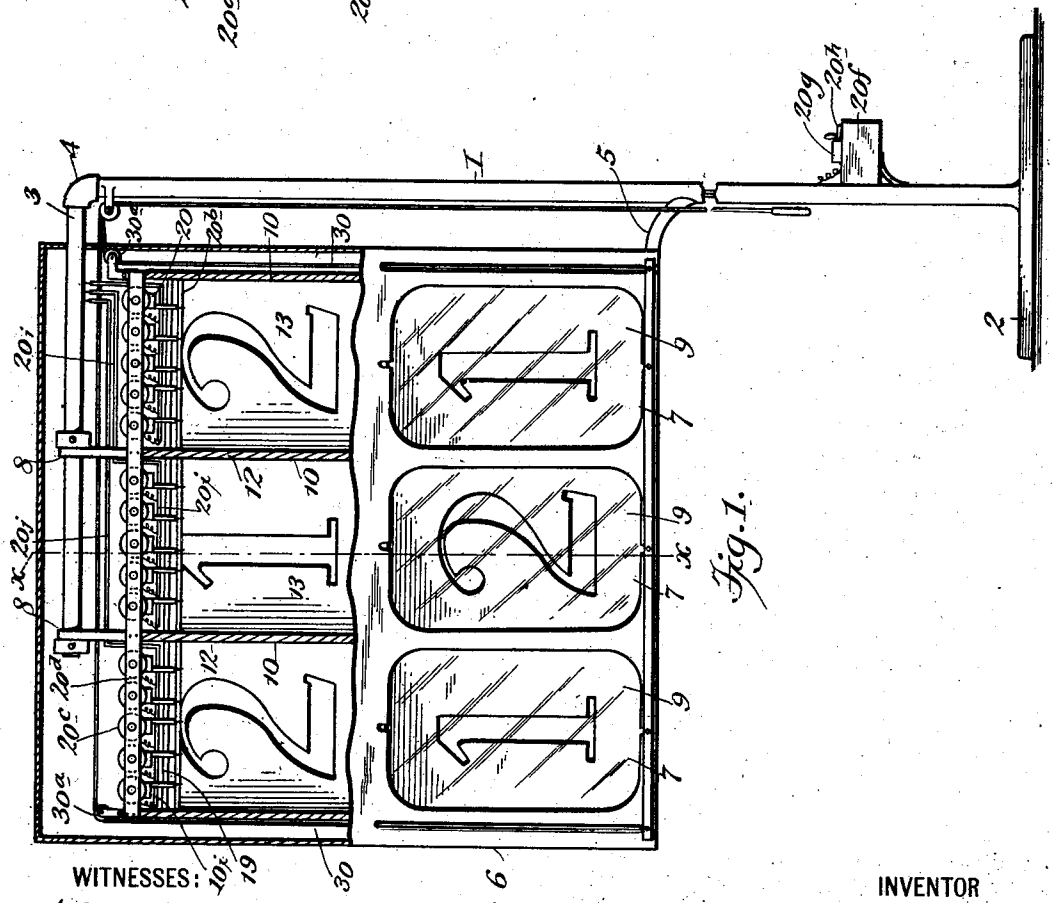


Fig. 1.

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NO MODEL. 2 SHEETS—SHEET 2.

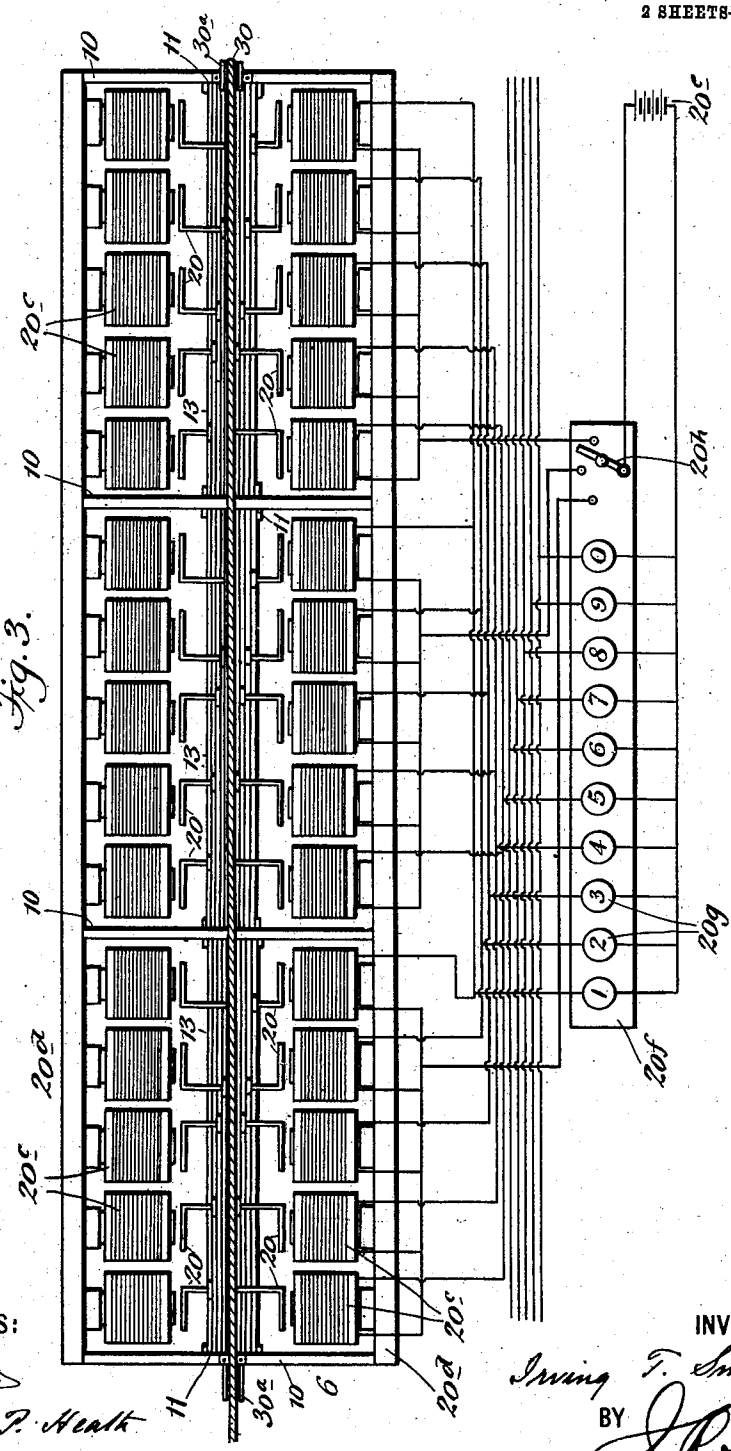


Fig. 3.

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UNITED STATES PATENT OFFICE.

IRVING T. SMITH, OF BROOKLYN, NEW YORK.

CARRIAGE-CALL BOX.

SPECIFICATION forming part of Letters Patent No. 721,337, dated February 24, 1903.

Application filed January 10, 1902. Serial No. 89,128. (No model.)

To all whom it may concern:

Be it known that I, IRVING T. SMITH, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Carriage-Call Boxes, of which the following is a specification.

This invention relates to carriage-call boxes; and it has for its object to provide an improved device of the class described which will do away with the noise and confusion which results from the method now in vogue of calling carriages at public and private gatherings.

Another object of the invention is to provide an improved device of the class described which will dispense with the services of the extra man now employed to call carriages upon such occasions and enable the same man who attends the door to also call the carriages.

Another object of the invention is to provide an improved device of the class described which can be used at night, as well as during the day, and which can be readily moved from place to place, as required.

In the drawings, Figure 1 is a side elevation of a carriage-call box embodying my improvements, partly broken away. Fig. 2 is a sectional view on the line *x x*, Fig. 1. Fig. 3 is a diagrammatic view of the electrical connections.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, my invention comprises in general a box provided at the sides with transparent openings diametrically opposite each other, transparent numbered slides movably mounted in said box and adapted to be presented one at a time, as desired, between the transparent openings in the sides of the box, and means of operating said slides and lighting the inside of said box.

In the preferred form of construction the invention consists of a hollow standard 1, provided with a suitable base 2, and an arm 3, projecting at right angles from its top. The standard 1 may conveniently be formed of a suitable-sized piece of pipe and the projecting arm 3 of a similar piece of pipe connected to the standard 1 by the usual pipe-coupling 4. A casing 6, provided with transparent openings 7 in its sides, is suitably secured to the arm 3 and braced, as at 5. The casing 6 preferably consists of a box of suitable size suspended from the arm 3 near its outer end in any suitable manner, as by screw-eyes 8. The openings 7 are preferably directly opposite each other and arranged in the sides of the lower portion of the casing 6, which is of greatly-reduced width, and are preferably fitted with glass covers 9. The openings may be of any desired number, and I find a convenient number to be three on each side of the casing 6. The upper portion of the casing 6 forms a chamber in which are arranged a series of racks 10, corresponding in number to the openings 7 and arranged above said openings 7. The said racks are arranged transversely of the casing 6 and form grooves 11, extending longitudinally of said casing 6. The said racks 10 may consist conveniently of transverse partitions 12, secured in the upper portion of the casing 6 and provided on their opposing faces with grooves 11, extending from the top to the middle portion of the lower part of the main chamber of the casing 6. The grooves 11 may be of any desired number; but in the preferred form of construction I have shown them to consist of ten in each rack 10. Slides 13 are arranged to slide in the grooves 11. The slides 13 preferably consist of aluminium and are each provided with a number extending from "0" to "9." The lower portion of the casing 6 forms a narrow depending well 14. The bottom of the well is conveniently covered with some elastic material 18. A convenient form of such material 18 is found to be a strip of rubber lining the bottom of said well 14.

Extending across within the upper portion of the casing 6 above the racks 10, intermediate the ends of such racks, I provide suitable cross-pieces 19, provided with means for lowering the slides 13 into the well 14. A convenient form of such means has been found to be armatures 20, pivotally mounted on said cross-pieces 19 and adapted each to engage with and normally hold the slides 13 in a raised position. The armatures 20 are preferably arranged in each compartment of the casing 6, one-half on each side of the slides

13, and the opposite armatures 20 are disposed so as to engage slides separated by half the number of slides in the compartment. The armatures 20 are adapted to be normally held in engagement with their respective slides 13 by tensional means, herein shown as coiled springs 20^a, connected with the lower ends of the armatures 20 and with cross-pieces 20^b, extending longitudinally across the compartments and secured to the sides of the casing 6. Magnets 20^c are mounted on cross-pieces 20^d, secured to the sides of the casing 7 in juxtaposition to the armatures 20 and adapted when energized to attract such armatures 20 and release the slides 13. Suitable means of energizing the magnets 20^c are provided and in the preferred form consist of an electric battery 20^e, connected by suitable wires with said magnets 20^c. In the form shown a keyboard 20^f is provided and secured at a suitable height upon the standard 1. The keyboard 20^f is provided with ten keys 20^g, numbered "1," "2," "3," "4," "5," "6," "7," "8," "9," and "0," and each connected by suitable wires to the armatures 20 in each of the compartments of the casing 6, which engage the slides 13, bearing the corresponding numbers. They are also electrically connected through the battery 20^e with a switch 20^h, by which the circuit may be completed with the magnets in either of the compartments. This organization lessens the number of keys required in the keyboard and simplifies and facilitates the working of the device. The wires leading from the magnets 20^c may be conveniently assembled in a cable, as at 20^i, and those from the different compartments finally conducted through the arm 3 and the standard 1 or through the standard 1 to the key and switch boards. To return the slides 13 to their raised position, a convenient means has been found to be to make the bottom of the well 14 movable and provide it at each end with a cord 30, which extends over pulleys 30^a, secured near the top of the casing 6 and leading to a convenient point adjacent to the keyboard, so as to be within easy reach of the operator. By this organization a very simple, effective, and convenient mode of operating the device is provided which is inexpensive and has no parts to interfere with the display of the numbers and no operating parts that take up room and necessitate enlarging the structure.

The casing 6 has the lower portions of the sides of its upper or wider portion extended below the bottom of such upper portion and curved inwardly, forming downwardly inwardly curved flanges 27. If desired, such flanges 27 may be provided or formed with a reflector on their inner sides. Arranged within the flanges 27 are means of illumining the transparent openings 7. Preferably such means consist of a series of electric lamps 28. Such lamps 28 will be provided with a current in any of the ordinary modes suitable to the uses to which the apparatus is to be put. If the apparatus is a fixture, as it may be at theatres, public halls, hotels, and other places where its use may be constant, it may be permanently connected with the general electric installation. If it is to be moved from place to place as needed, it may be provided with sufficient wire to enable it to be connected with the electric lighting system at the place where it is to be used. If there is no such system at the place where the apparatus is to be used, the necessary current may be furnished by batteries arranged within the casing 6 beneath the racks 10.

An electric bell 29, with suitable connections, may be provided to attract attention when a number is to be displayed.

The operation and advantages of my invention will be readily understood and appreciated. The apparatus having been installed, as explained, at the place where it is to be used, the doorman or other selected attendant has only to press the keys bearing the desired numbers to lower the slides 13, bearing the corresponding numbers, into the well 14 between the opposite openings 7, thus exhibiting to those on either side of the casing 6 the desired number of the required carriage and at the same time sound a bell to attract attention. When in use at night, the lights are turned on before the keys are operated. When it is desired to return the slides 13 to normal position, a pull on the cords 30 lifts the bottom of the well 14, with the slide or slides 13 thereon, until the slide or slides 13 are again engaged by their respective armatures 20.

It is evident that by the use of the device the shouting, confusion, and annoyance attending the present method will be avoided, and as the numbers can be kept displayed until the carriage comes up there can be no conflict between different drivers to get up first.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A device of the class described, comprising a casing provided with a well with a plurality of opposed side openings and a movable bottom, a plurality of racks formed in said casing above and complementary to said openings, a plurality of numbered slides mounted in each of said racks, and provided with notches near the top, spring-controlled pivoted armatures located at each side of

each of said racks, and normally engaging said notches to support said slides above said openings, electromagnets in proximity to said armatures, a keyboard electrically connected with said magnets to energize the same, switches in the circuits including the magnets in each rack, whereby the number of keys is limited to the number of magnets in a single rack, and cords for raising the well-bottom to restore the slides to normal position.

2. A device of the class described, comprising a supporting-frame, a casing carried by said frame, and provided with a plurality of opposed transparent side openings, and with a movable bottom, a plurality of racks formed in said casing above and complementary to said openings, a plurality of numbered slides mounted in each of said racks and provided with notches near the top, spring-controlled pivoted armatures mounted at each side of each of said racks and normally engaging said notches to retain the slides above the openings, electromagnets mounted in proximity to said armatures and each of said magnets being in a separate circuit and those in each rack being separably connected with the operating means, and drawing-cords for raising said movable bottom to restore said slides to normal position.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

IRVING T. SMITH.

Witnesses:
HARTWELL P. HEATH,
JOHN M. HOCTOR.