J. H. KLIEGL.

SELECTIVE CONTROLLER FOR VEHICLE CALL SYSTEMS.

APPLICATION FILED JULY 8, 1913.

1,160,416.

Patented Nov. 16, 1915.

2 SHEETS—SHEET 1.

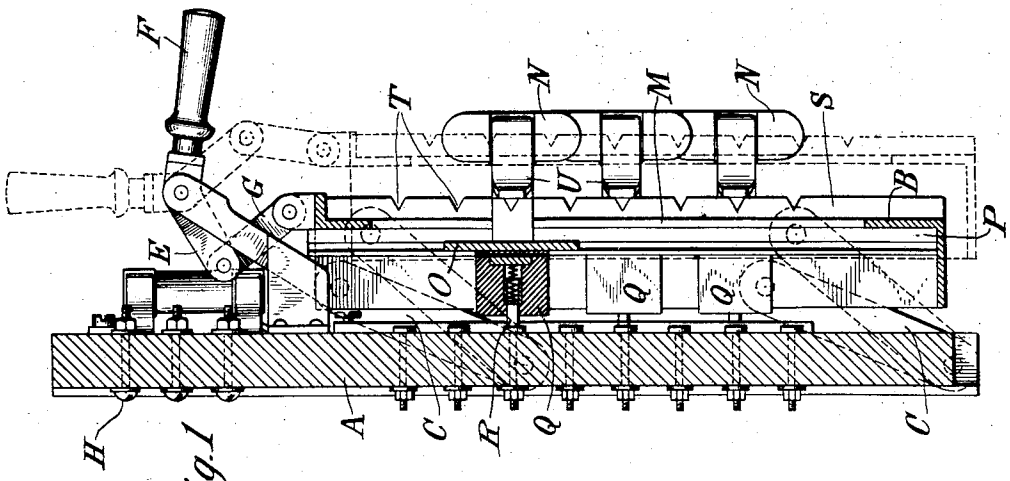

Fig. 1

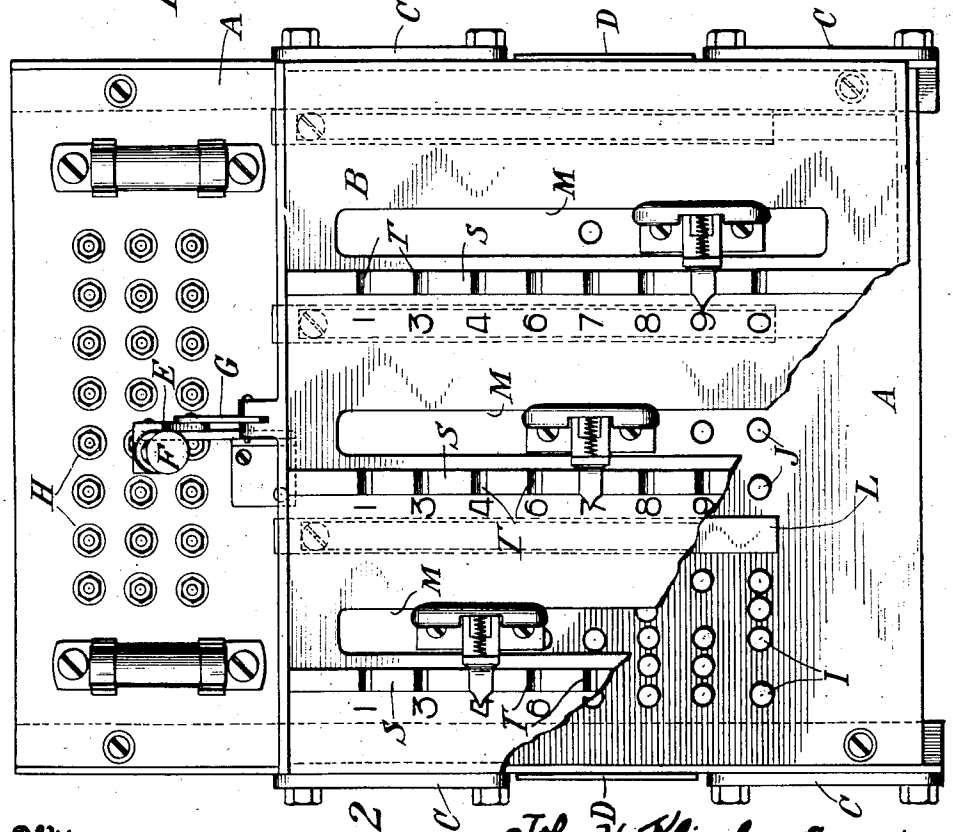

Fig. 2

Witnesses:
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Hugo B. Poleau

John H. Kliegl, Inventor
By his Attorneys
Kerr Page Cooper & Hayward.

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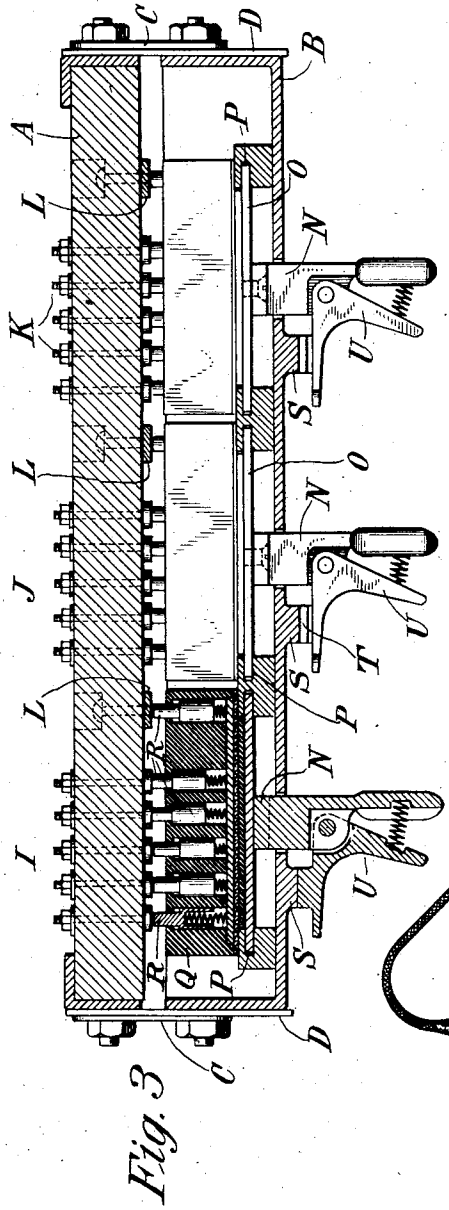

Fig. 3

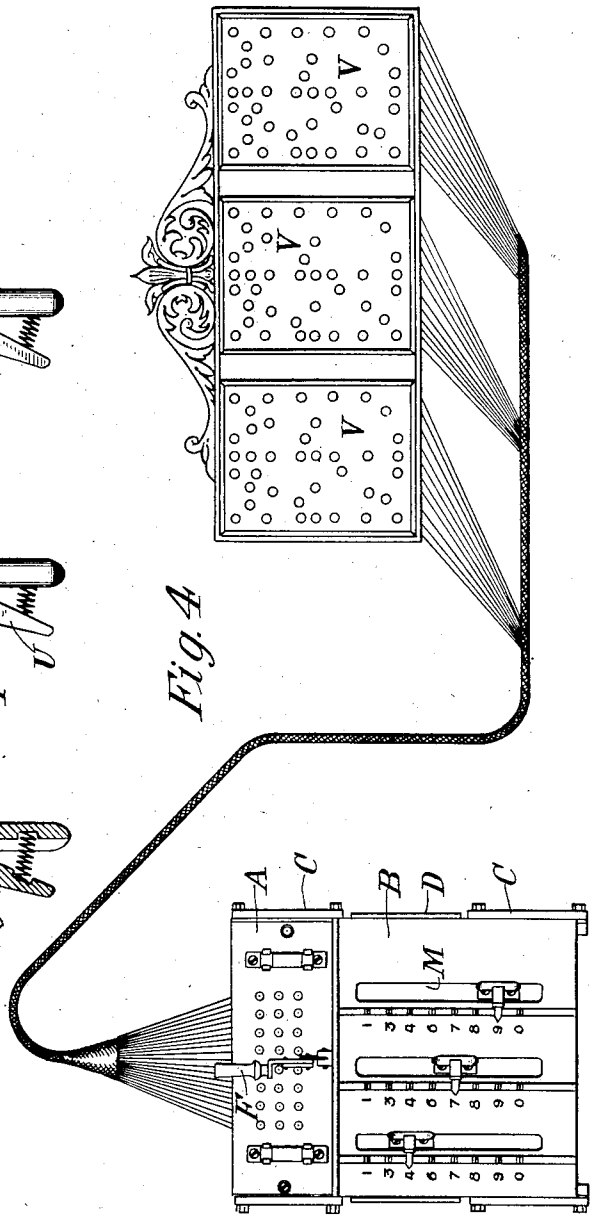

Fig. 4

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UNITED STATES PATENT OFFICE.

JOHN H. KLIEGL, OF NEW YORK, N. Y.

SELECTIVE CONTROLLER FOR VEHICLE CALL SYSTEMS.

1,160,416. Specification of Letters Patent. Patented Nov. 16, 1915.

Application filed July 8, 1913. Serial No. 777,828.

To all whom it may concern:

Be it known that I, JOHN H. KLIEGL, a citizen of the United States, residing at New York, county and State of New York, have invented certain new and useful Improvements in Selective Controllers for Vehicle Call Systems, of which the following is a full, clear, and exact description.

This invention is an improvement primarily designed for use in vehicle call systems for theaters, hotels, and the like, in which call numbers are displayed at a point more or less remote from the place of exit or order desk, by the completion in prearranged combinations of a series of annunciator controlling circuits. In the systems of this kind now in vogue, the display of the numbers is effected by the closing or prearranged combinations of controlling circuits, through the instrumentality of cards or slips of paper containing perforations at predetermined points corresponding in position to one or more of a series of contact terminals of an instrument into which the cards are inserted and by the operation of which those terminals only are brought into engagement which correspond in position with the perforations in the card. In such cases the occupant or owner of an arriving vehicle is furnished with a card perforated in such manner as to effect the display in a suitable annunciator or lamp-board of the number on the card and corresponding to that on a duplicate card handed to the driver, and on ordering the vehicle the perforated card is placed in a selective circuit controller by an attendant who manipulates it to signal the number to the vehicle stand where the drivers wait for their orders. This system requires the making of two sets of cards, one of which at least, involves considerable expense, due to the character of paper required and the necessity of producing therein the proper number of properly located perforations. The system is also open to the objection that if the perforated card be folded or crumpled it may be rendered useless by such impairment for its intended purpose.

The object of the present invention is to avoid these objections and to provide a more simple and economical system, and to this end the invention consists in a selective circuit controller in which movable groups of contacts are adapted to be adjusted to given positions and caused to complete the prearranged combinations of controlling circuits corresponding to and adapted to display the numbers on the printed slips which are distributed to the occupants of arriving vehicles and handed to an attendant when the vehicle is to be ordered.

The improvement may be carried out by the use of mechanism the specific character of which may be greatly varied, but the best and most practicable embodiment of the invention of which I am now aware is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical cross section of my improved selective controller, Fig. 2 is a front view in elevation of the same, parts being broken away, Fig. 3 is a horizontal cross section of the device and Fig. 4 is a partly diagrammatic illustration of the complete system.

The instrument by means of which the desired combinations of controlling circuits are completed, comprises as essential elements, a base of slate or insulating material A which is to be mounted in any proper manner and position, preferably in some form of box or casing mounted on the wall. In front of the base is a plate B connected to the base by a suitable number of pivoted bars or plates C and arranged to swing between guide plates D.

To the upper part of the base A is pivoted a lever E provided with a handle F and connected by a toggle lever G with the upper edge of the plate B, so that when the handle F is drawn down, the plate B will swing upwardly and toward the base A.

Embedded in base A are binding posts H, below which are three groups of terminals designated by the letters I, J and K respectively, and alongside of each group a conducting or bus bar L. The terminals of each group I, J and K are arranged in definite positions or relations according to a prearranged plan and are connected in definite order to the binding posts H, the bars L being connected to a return wire common to all the circuits leading from said binding posts to the annunciator or lamp board where the numbers are displayed.

The electrical connections between the parts hereinabove referred to being a mere matter of commonplace knowledge on the part of anyone skilled in the art, are not illustrated in detail, in order not to obscure

the constructive features of the invention which the drawings are intended to show.

The plate B is formed with three vertical slots M through which project studs N carried by plates O adapted to slide vertically in guides or grooves P on the reverse side of the plate B. To the plates O by any suitable intermediate means are secured insulating blocks Q containing spring seated metallic contacts R arranged in line and in definite positions therein.

Parallel with the slots M are bars or projections S containing notches T and to the studs N there are pivoted right angled spring actuated levers U the free ends of which ride over the bars S when the studs N are shifted, and engage with the notches in said bars.

To assist in an understanding of the operation of the device and the system with which it is more particularly designed to be used, the latter is illustrated diagrammatically in Fig. 4. Referring to said figure, V represents a board containing incandescent lamp sockets arranged in positions to form two or more single figures, the same sockets, of course, being utilized wherever possible in forming parts of different digits. The sockets being filled with incandescent lamps and the board mounted at a convenient point, conductors are run, generally in a cable from the boards to the selective controller in the lobby of the theater or near the order desk of a hotel, each group of lamps forming the digits being wire and connected through two or more conductors to predetermined terminals of the groups I, J, K, and one of the bus bars L. The lamp board is divided into three similar sections so as to be capable of displaying a number composed of three digits. If, therefore, the number 741 is to be displayed, the attendant, grasping the left hand stud and its pivoted lever U, between his thumb and forefinger, disengages the lever from the bar S and slides it up or down until its free end reaches the notch numbered seven. The lever when released and permitted to engage with said notch, holds the stud and its block Q in such position that the spring contacts in the block will engage with the stationary terminals of those circuits which supply current to the lamps composing the digit seven in the lefthand section of the lamp board, when the plate B is raised and forced toward the base A. In a similar manner the central stud N is set at the notch numbered four, and the right hand stud at the notch numbered one, after which the handle F is depressed, with the result that the plate B is raised and forced toward the base A until the spring seated contacts R are brought into engagement with those terminals I, J, K, with respect to which such contacts have been adjusted to registering relation, with one contact of each group always engaging with a bus bar L on the base plate.

As a matter of convenience and economy in the arrangement of lamps, there are eight notches in each bar S and eight rows of terminals in each group I, J, K, corresponding to and adapted to display the digits 1, 3, 4, 6, 7, 8, 9 and 0 respectively. With the disposition of circuits and terminals adopted, therefore, the above described operations of the device will bring the contacts of the left hand stud N and block Q into engagement with the bar S and terminal or terminals of the fifth row from the top of the set I, those of the middle block into engagement with the terminals of the third row of the group or set J, and the contacts of the right hand block into engagement with the top row of the terminals of the set K. By this means connections between the return wire common to the bus bars, and the several conductors that supply the lamps that display the number 741 are established through the contacts R and the metal plates or other electrical connections bridging said contacts. Any other number provided for in the system may be displayed in a similar manner or any other suitable form of annunciator may be similarly controlled by the adjustment of the contacts and the manipulation of the instrument above described.

From the foregoing it will be understood that the novelty of the invention resides in the construction and operation of the selective controller, and that the other parts of the system are or may be constructed and arranged in the ordinary or any desired manner. The system embodying the invention possesses many obvious advantages, it being easy of manipulation, simple in detail and of such character as to entirely obviate the necessity of using special cards or other accessory devices.

What I claim is:

1. A selective controller for vehicle call systems of the kind described, comprising in combination, an insulated base carrying the terminals of the annunciator controlling circuits, arranged in predetermined order and position, a plate movable toward and from the said base, blocks capable of sliding adjustment in said movable plate and carrying contacts which by means of such adjustment may be brought to registering relation with desired stationary terminals and means for operating the movable plate to bring said contacts into operative engagement with the selected terminals, as set forth.

2. A selective controller for vehicle call systems of the kind described, comprising in combination, an insulating base carrying the terminals of the annunciator controlling circuits, arranged in predetermined order in

groups corresponding to the position of the digits composing the numbers to be displayed, a plate pivotally connected to said base, blocks mounted thereon and capable of adjustment along parallel lines, rows of contacts carried by said blocks and adapted to be brought to registering relation with the terminals of the controlling circuits and means for moving the said plate toward the base whereby the contacts are brought into operative engagement with the selected terminals as set forth.

3. A selective controller for vehicle call systems of the kind described, comprising in combination, a stationary support for the terminals of the annunciator controlling circuits, a plate movable toward and from said support, blocks carrying contacts and movable in parallel guides attached to said plate whereby said contacts may be adjusted to registering relation with selected terminals on the stationary support, means for retaining said blocks in their adjusted positions, and means for moving the plate to bring the adjusted contacts into operative engagement with the selected terminals as set forth.

4. A selective controller for vehicle call systems of the kind described comprising, in combination, an insulating base carrying the terminals of the annunciator controlling circuits, arranged in predetermined order and position, a plate pivotally connected to said base having an opening therein, a second plate adapted to slide in guides on the under side of the said plate, blocks mounted upon the second mentioned plate, rows of contacts carried by said blocks and studs mounted on the upper side of the said second mentioned plate adapted to be moved in the opening in the said plate member to bring the contacts carried by the said blocks to desired adjustment and a toggle lever for moving the said plate toward the base whereby the contacts are brought into operative engagement with the selected terminals as set forth.

5. A selective controller for vehicle call systems of the kind described comprising, in combination, an insulating base carrying the terminals of the annunciator controlling circuits arranged in predetermined order and position, a plate adapted to be pivoted to and positioned in front of the said base member having a longitudinal opening therein, a second plate member secured in guides on the underside of the said plate and adapted to slide therein longitudinally of the said plate, blocks mounted upon the second mentioned plate, rows of contacts carried by the said blocks, studs mounted on the upper side of the said second mentioned plate adapted to be moved in the opening in the said plate and to bring the contacts carried by the said blocks to desired adjustment and a toggle lever adjusted upon the base member and plate whereby the contacts are brought into operative engagement with the selected terminals as set forth.

6. A selective controller for vehicle call systems of the kind described, comprising, in combination, an insulating base carrying the terminals of the annunciator controlling circuits arranged in predetermined order in groups corresponding to the position of the digits composing the numbers to be displayed, a plate movable toward said base having a longitudinal opening therein, a bar having notches therein secured upon the said plate adjacent the opening therein, a second plate member adapted to slide in guides on the under side of the said plate, blocks mounted thereon, rows of contacts carried by said blocks, studs mounted on the other side of said plate adapted to be moved in the opening in the said plate member to bring the contacts carried by the said blocks to desired adjustment, levers secured upon the said stud and adapted to engage in the notches of the said bar member to hold the stud and contact members in desired adjustment and means for moving the plate to bring the adjusted contacts into operative engagement with the selected terminals, as set forth.

In testimony whereof I affix my signature in the presence of two subscribing witnesses.

JOHN H. KLIEGL.

Witnesses:
JOHN C. KERR,
THOMAS J. BYRNE.