

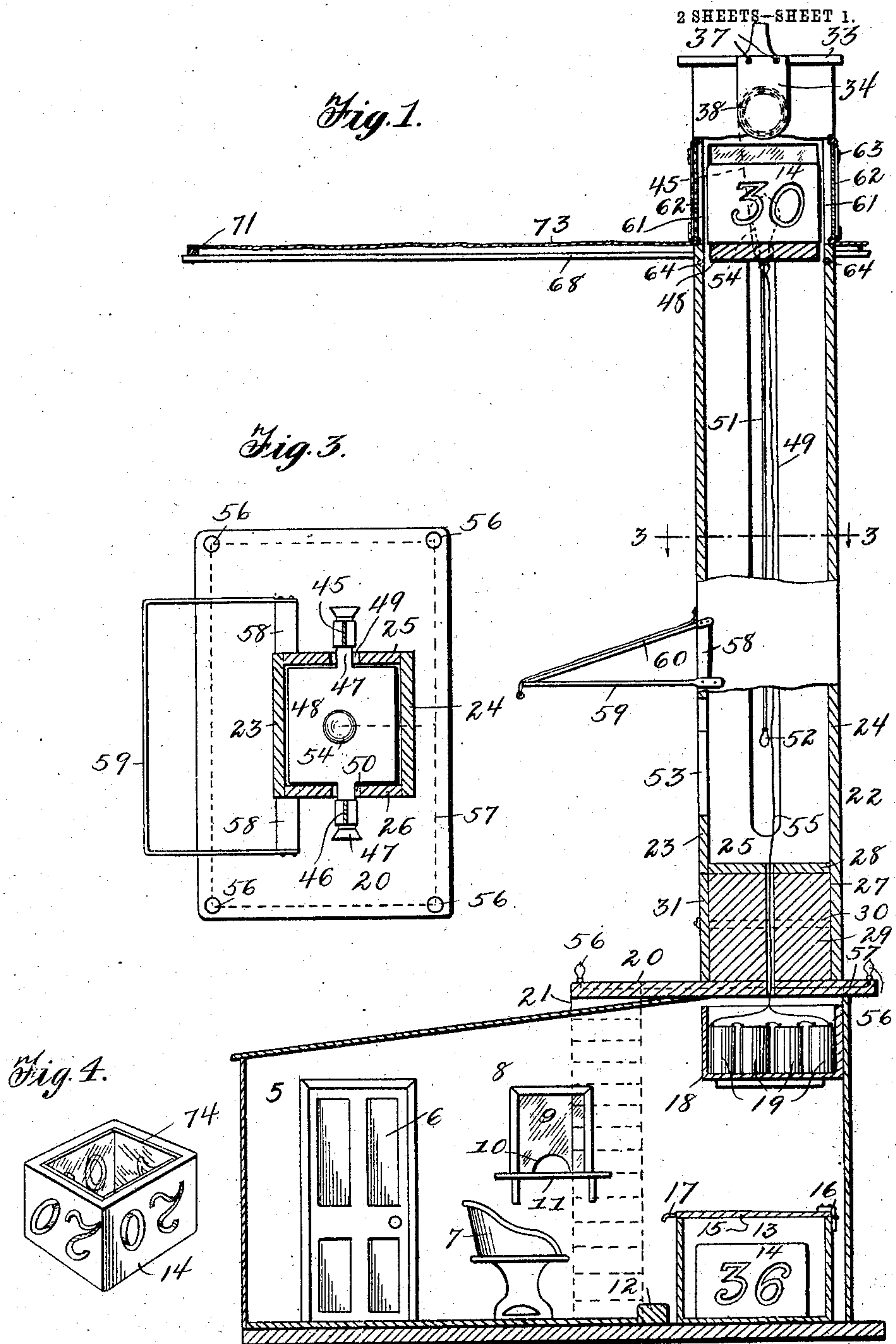
No. 850,671.

PATENTED APR. 16, 1907.

J. H. McDANIEL.

ELECTRIC TOWER FOR DISPLAYING CARRIAGE NUMBERS.

APPLICATION FILED MAY 8, 1906.



Witnesses
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Inventor
John H. McDaniel
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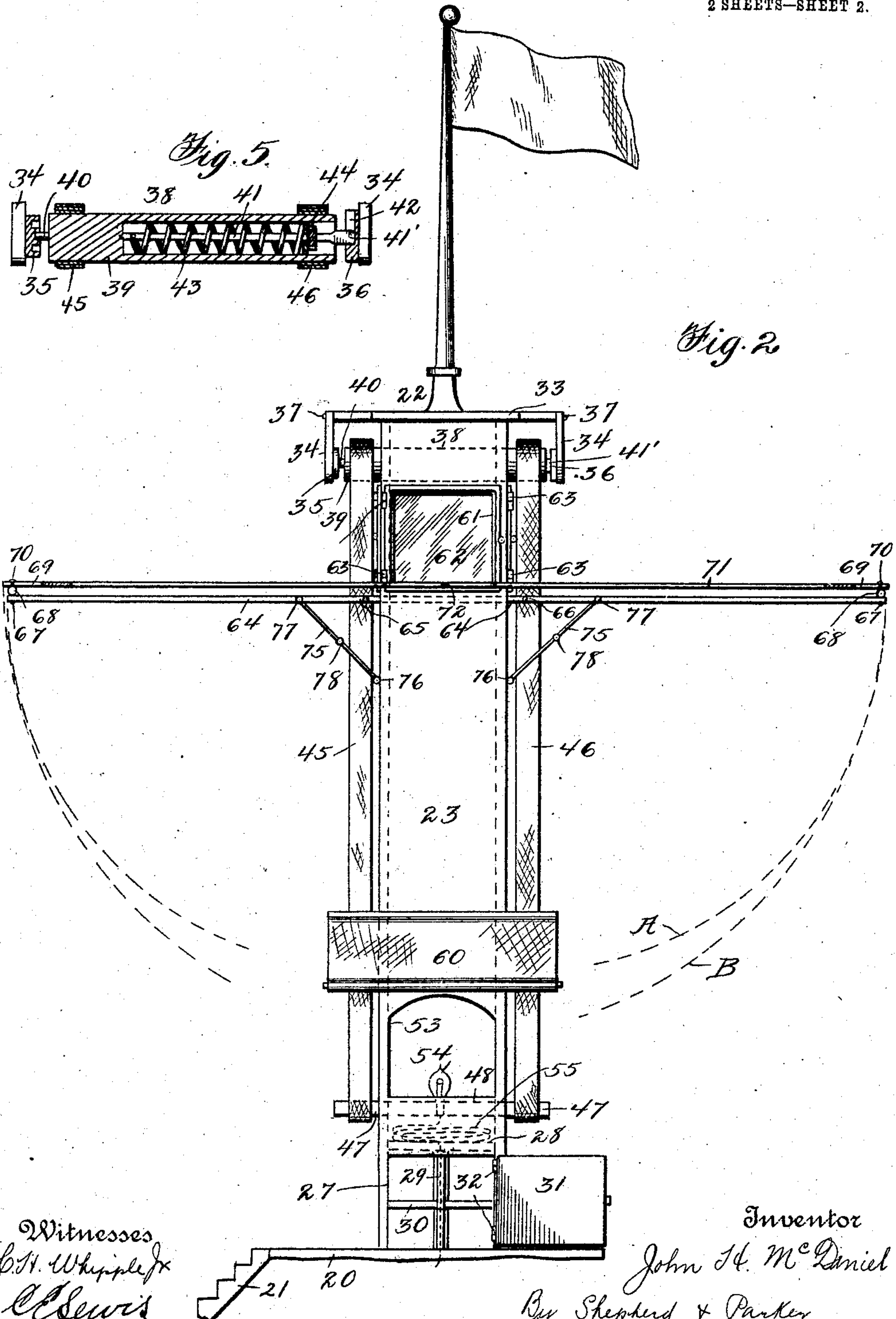
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOHN H. McDANIEL, OF ST. LOUIS, MISSOURI.

ELECTRIC TOWER FOR DISPLAYING CARRIAGE-NUMBERS.

No. 850,671.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed May 8, 1906. Serial No. 315,847.

To all whom it may concern:

Be it known that I, JOHN H. McDANIEL, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in an Electric Tower for Displaying Carriage-Numbers, of which the following is a specification.

My invention relates to a signal-tower adapted to display illuminated signal devices for the purpose of summoning carriages or other conveyances at theaters or other places where a large number of people are assembled.

The invention aims primarily to provide a novel signal-tower and apparatus for displaying illuminated numbers a sufficient distance above the heads of a crowd to enable the drivers of waiting vehicles to clearly distinguish the numbers displayed and to respond to the same in their turn.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawings, Figure 1 is a longitudinal vertical section, partly in side elevation, of a signal-tower constructed in accordance with the invention. Fig. 2 is a front elevation of the tower proper. Fig. 3 is a horizontal section upon line 3 3 of Fig. 1. Fig. 4 is an inverted perspective view of a number-box, which will be hereinafter described; and Fig. 5 is a detail sectional view of a spring-roller hereinafter described.

Like numerals designate corresponding parts in all of the figures of the drawings.

Referring to the drawings, the numeral 5 designates a cabin to which access may be had through a door 6. A chair 7 provides a convenient seat for the operator, as will be hereinafter set forth. A ticket-window comprising a window-casing 8, a glass 9, having an opening 10 formed therein, and a shelf 11 is located in the side wall of the cabin.

If desired, a second window similar to the one just described may be located in the opposite wall of the cabin. A sill 12 running transversely of the cabin imparts additional rigidity to the whole structure, forms a convenient foot-rest for the operator, and creates a shallow compartment for the reception of a chest 13, adapted to receive number-boxes 14. Chest 13 is provided with a closure 15, which is hinged at 16 to the rear

wall of said chest and is provided at its front edge with a handle 17.

Secured to the side walls of the cabin and located in the upper right-hand corner thereof (see Fig. 1) is a battery-box 18, in which are located storage batteries 19 for supplying an electric current to incandescent signal-lamps, which will be hereinafter described.

Located immediately above the cabin 5 is a platform 20, to which access may be had by a stairway 21, leading from said platform to the ground. Rising from this platform is a tower 22, comprising a front wall 23, a rear wall 24, and the side walls 25 and 26. A compartment 27 is formed in the lower part of the tower by a partition 28, and said compartment is divided into a number of pigeon-holes by a vertical partition 29 and a horizontal partition 30. A door 31 forms a closure for the compartment 27, said door being hinged, as at 32, to the front wall of the tower.

The top 33 of the tower extends beyond the side walls thereof and has secured thereto hangers, which carry bearing-plates 35 and 36. Said hangers, which are designated by the numeral 34, are secured to top 33 of the tower by screws or other fastening devices 37.

Passing through the upper part of the tower and mounted in the bearing-plates 35 and 36 is a spring-actuated roller 38. By referring to Fig. 5 of the drawings it will be seen that the construction of this spring-roller is similar to the construction of an ordinary shade or curtain-roller said roller comprising a hollow body portion 39, a pin located at one end of the bearing portion and adapted to rotate in bearing-plate 35, said pin being indicated by the numeral 40, a stem 41, having an angular end 41' adapted to be received in a slot 42 of bearing-plate 36, a coiled spring 43, adapted to actuate said body portion in one direction, a ratchet carried by stem 41, and a pawl 44, adapted to engage said ratchet, all of the usual and well-known construction.

Attached to roller 38 and adapted to be wound thereon by the action of spring 43 are the flexible bands 45 and 46, the free ends of which are attached to studs 47, formed integral with a carrier 48 and projecting through slots 49 and 50, formed in the side walls of the tower. Attached to the bottom of the carrier 48 is a rope or cord 51, the

lower end of which carries a handle 52. The front wall of the tower has an opening 53 formed therein for a purpose which will be described later on.

5 Mounted upon the center of carrier 48 and projecting above the upper face thereof is an incandescent lamp 54, to which current is supplied by the batteries 19 through a wire 55, which passes through an opening formed
10 in partition 28, partition 29, and platform 20. Incandescent lamps 56, located at the corners of the platform 20, are also fed from batteries 19 through a wire 57.

15 Located upon each side of the tower a short distance above the opening 53 are spreader-blocks 58, and to said blocks is secured an awning-frame 59, adapted to support an awning 60. Openings 61, formed in the upper portions of the walls of the tower, are
20 covered by windows 62, which may, if desired, be formed of magnifying-glass. Said windows are hinged to the tower, as at 63.

Passing transversely through the tower a short distance below the windows 62 are
25 rods 64, which project a considerable distance beyond the walls of the tower and are hinged, as at 65 and 66. Transversely disposed with relation to these rods and secured to the outer ends thereof by screws 67 are the
30 rods 68. Parallel with the rods 64 and having a sliding engagement with the extreme outer ends of rods 68 through the medium of slots 69 and pins 70 are rods 71, hinged centrally, as is indicated at 72. A canopy
35 73, carried by the above-mentioned rods, protects the platform and the space about the base of the device from snow or rain.

In Fig. 4 one of the number-boxes is shown in perspective. The number "20" is indicated
40 on said box. Said boxes carry a corresponding number upon all of their sides. These numbers are formed by cutting through the sides of the boxes, and said boxes are then lined with plates of what is commonly known
45 as "opal" glass. This glass presents a white appearance during the day; but at night a light is easily visible through it.

The operation of the device is as follows: A signal-tower such as is herein shown and
50 described must in order to be of practical use not only provide means for showing a signal, but must also provide convenient means for issuing checks to the drivers of the carriages upon their arrival at the theater. This ob-
55 ject is accomplished by the provision of the cabin 5. The operator takes his station in this cabin, and as each carriage arrives the driver thereof is given a check containing the number which will be shown at the tower
60 when his carriage is wanted. The operator retains a corresponding check containing the number and the name of the owner of the carriage. These checks are issued through the ticket-window in the cabin. After the per-
65 formance at the theater is over the operator

takes his position upon the platform 20, hav- ing first removed to said platform such num- ber-boxes as the checks in his possession show will be needed. Compartment 27 is utilized
70 to hold these checks, and the awning 60 af- fords additional protection to the operator at this time. When a given carriage is called for, the operator passes the number-box contain- ing the carriage-number through opening 53
75 and places it upon the carrier 48, at which time the walls of said number-box will surround the lamp 54. Bands 45 and 46 are then pulled upon until the spring-roller, acting af- ter the manner of a shade-roller, winds said
80 bands upon itself, and thereby draws the car- rier and number-box to the upper limit of movement of said carrier, or, in other words, until the studs of said carrier reach the upper
85 ends of the slots in which they travel, at which time the number-box will be opposite the windows of the tower and the number carried thereby will be visible through said
90 windows by virtue of the fact that the light from lamp 54 will shine through the opal glass 74 to thereby outline the numbers at
95 night and by virtue of the fact that said glass presents a white surface by day while the number-boxes are painted black. It will thus be seen that this device may be used for
either the matinées or the evening perform-
ances. The signal-lights carried upon the
corners of platform 20 may be used to signal
the end of the performance or any other fact
agreed upon. These lights may be of vari-
ous colors, if desired. 100

If in winter it should be found that an un- due amount of snow has collected upon the canopy 73, the supporting-braces 75, which
are pivoted to the tower at 76 and to the
swinging portions of rods 64 at 77 and are
105 hinged at 78, may be pressed upwardly and toward the tower. This will result in the downward swinging of said rods 64 upon the
arc A. Rods 68 will be carried bodily down- ward therewith, while rods 71 will be bent at
110 their pivotal point 72, and the outer ends thereof will travel downwardly upon the arc B. This collapsing of the canopy-frame will
cause the snow to slide from the canopy, af- ter which the parts may be restored to their
115 original position. Cord 51 and handle 52 provide means for drawing the carrier down when it is desired to substitute another num-
ber-box for the one shown.

From the foregoing description it will be
120 seen that simple and efficient means are here- in provided for displaying carriage-signals, for issuing carriage-checks, for affording pro-
tection to the operator during inclement
weather, and for protecting the space around
125 the device from rain and snow. While the elements shown are well adapted to serve the purposes for which they are intended, it is to
be understood that the invention is not lim-
ited to the exact construction illustrated, but 130

includes within its purview such changes as may be made within the scope of the appended claim.

Having described my invention, what I claim is—

A device for displaying carriage-signals comprising a vertical tower provided with number-openings adjacent the top thereof, a horizontal platform movable through said tower, a light on said platform, means for

raising and lowering said platform, and a number-box provided with transparent digits and designed to be mounted upon said platform surrounding said light.

In testimony whereof I affix my signature 15
in presence of two witnesses.

JOHN H. McDANIEL.

Witnesses:

JOHN HOLLIDAY WEAR,
JOSEPH B. CRAWFORD.