

(No Model.)

2 Sheets—Sheet 1.

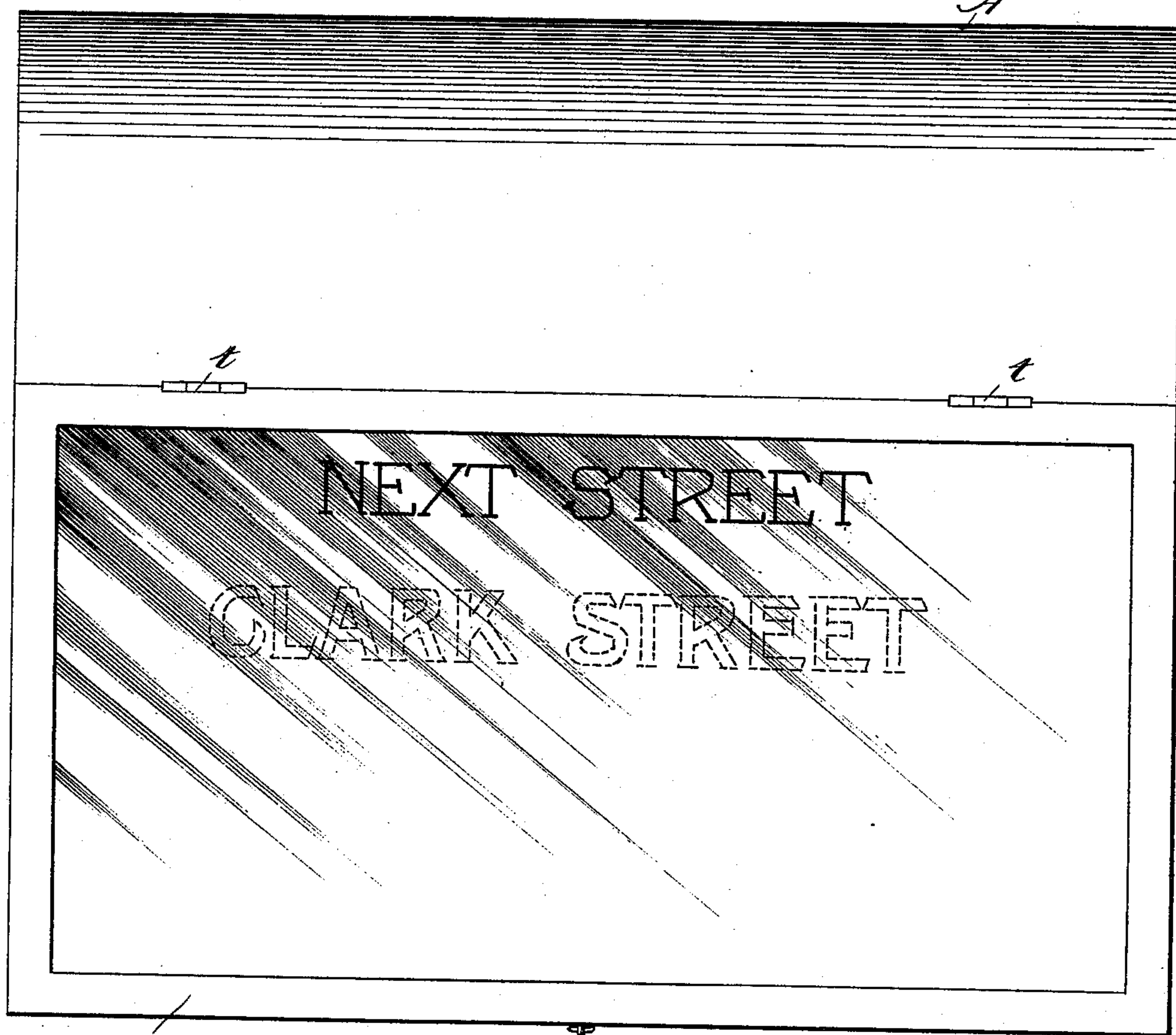
W. P. WILLIAMS.

STREET OR STATION INDICATOR FOR CARS.

No. 384,488.

Patented June 12, 1888.

Fig. 1.



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Inventor,
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(No Model.)

2 Sheets—Sheet 2.

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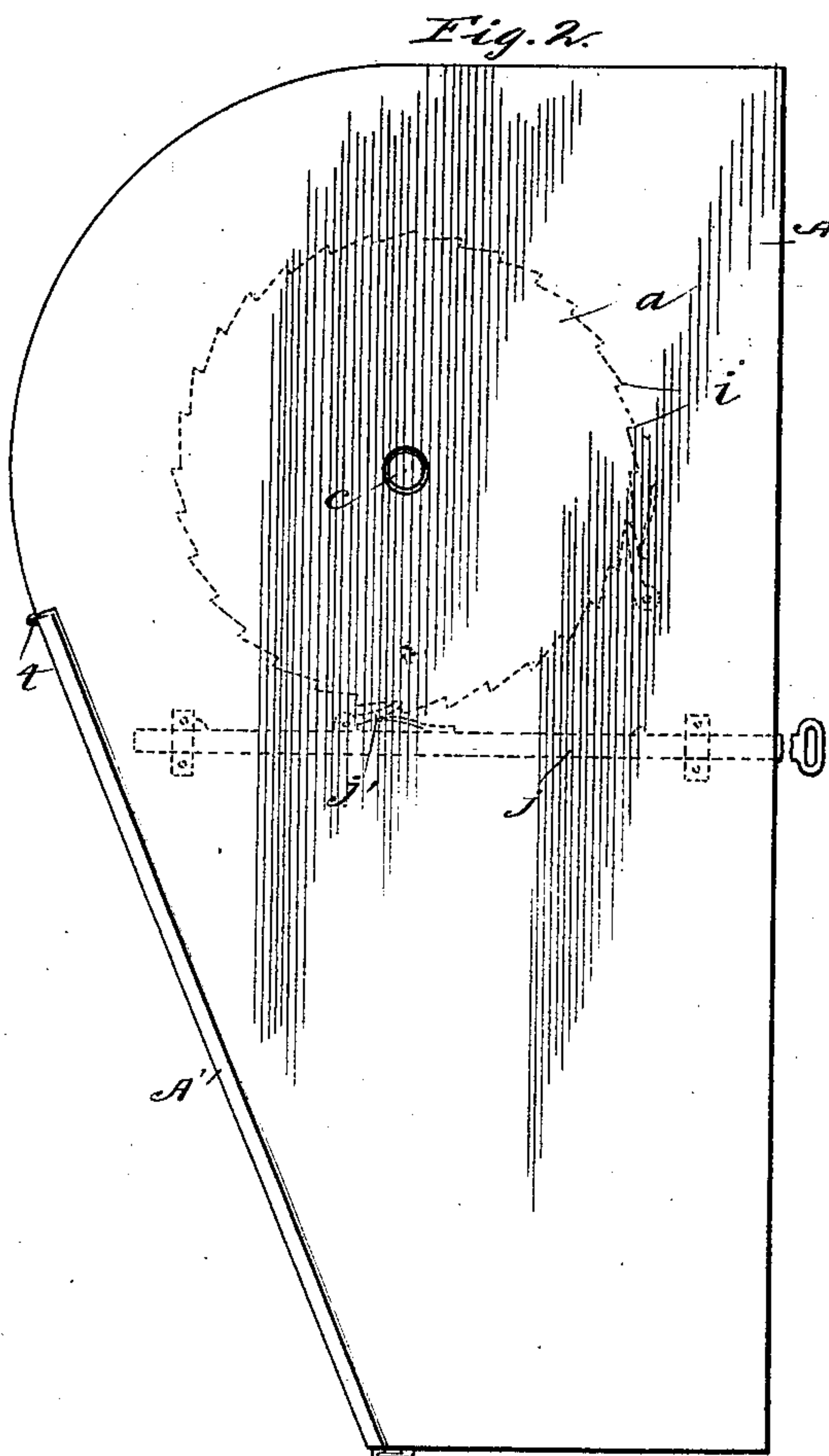
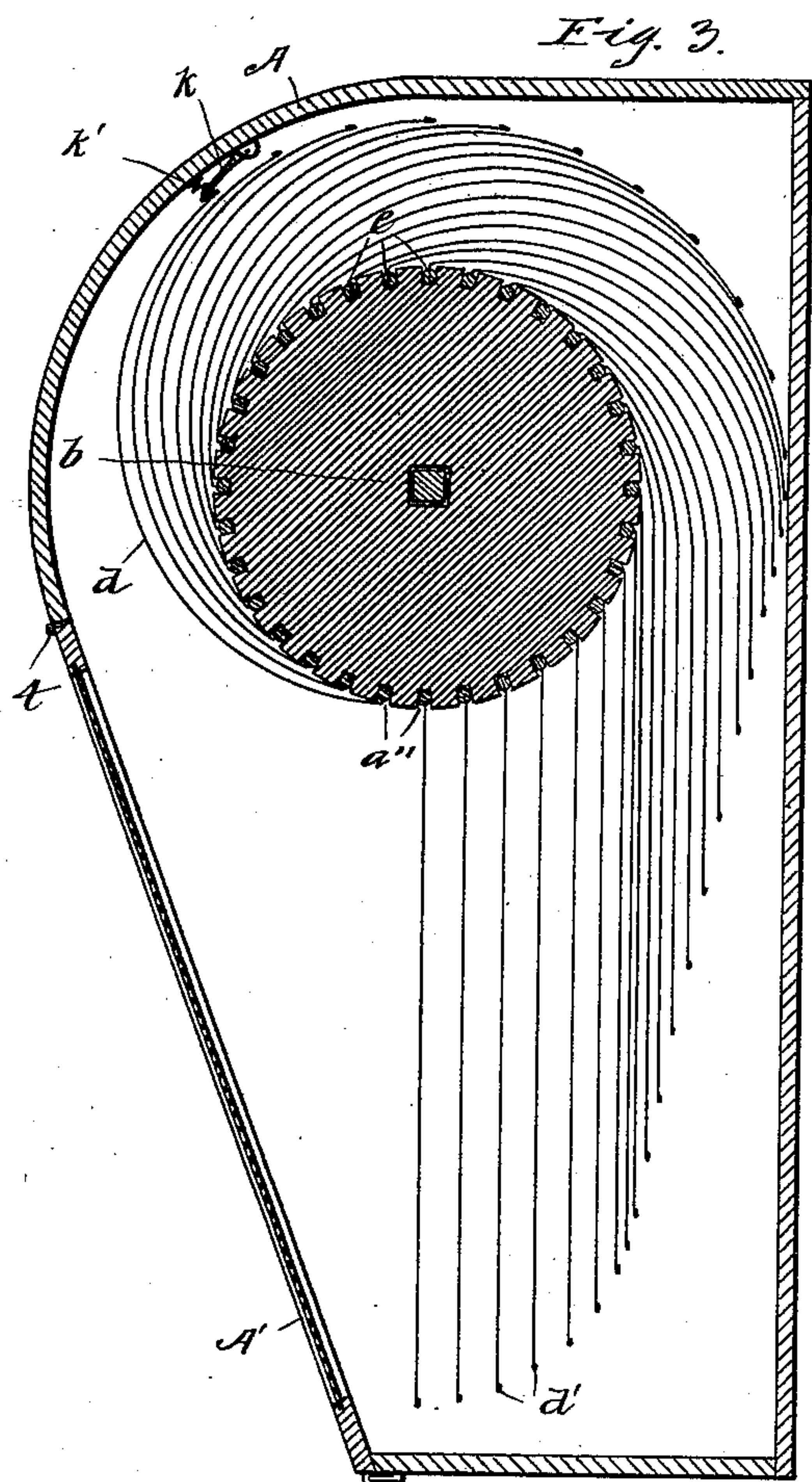
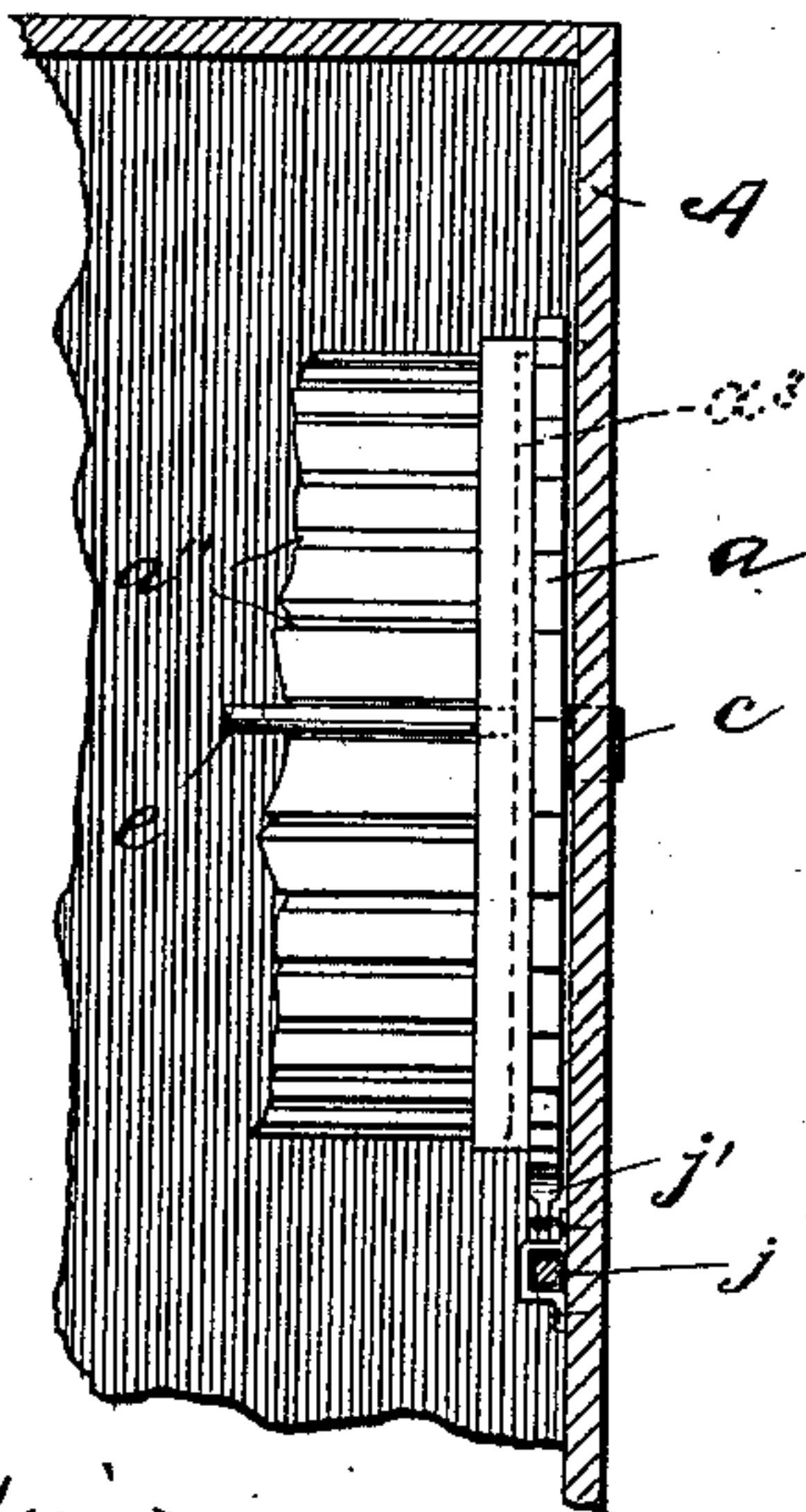


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM P. WILLIAMS, OF CHICAGO, ILLINOIS, ASSIGNOR OF TWO-THIRDS
TO WILLIAM P. JOHNSON AND ARTHUR CRANDALL, BOTH OF SAME PLACE.

STREET OR STATION INDICATOR FOR CARS.

SPECIFICATION forming part of Letters Patent No. 384,488, dated June 12, 1888.

Application filed January 28, 1888. Serial No. 262,284. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. WILLIAMS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Street or Station Indicators for Cars, which I desire to protect by Letters Patent of the United States, and of which the following is a specification.

My invention is more especially designed for street-cars to indicate the street that will next occur in the route, and at the same time is designed to afford a convenient and conspicuous advertising medium, in which curtains bearing the street-names, as they are changed to indicate the next in order of travel, shall also expose to the observer a change of advertisement. This I do by attaching a number of sheets or curtains to a rotatable center, that are successively exposed, and by which construction and arrangement I am enabled to embrace within limits that are not objectionable a number of changes sufficient for all practical purposes. I am aware that station or street indicators combining with them advertising-space, in which a continuous sheet or belt was a medium for effecting the changes, have been tried; but such construction so greatly limits the changes permitted when reasonably confined in the matter of space or bulk as to render such movements greatly objectionable, if not impracticable, and such arrangement is also unsatisfactory because of the difficulties in obtaining a uniform succession by reason of stretching of the continuous sheet or canvas.

In the accompanying drawings, forming a part of this specification, Figure 1 is a front elevation. Fig. 2 is an end elevation, and Fig. 3 a transverse vertical section. Fig. 4 is a side elevation showing the method of securing the curtains to their rotatable support.

A case, A, is provided that is adapted to be secured to the interior of the car at the end thereof, in which is located a rotatable bearing, consisting, in the present example, of a cylindrical shaft, *b*, having journaled ends *c* seated in the ends of case A, and disks *a* and *a'*, mounted on said shaft at each end and of equal diameter to said shaft, so that their

edges are flush with the surface of the cylinder. Said cylinder is provided with a series of longitudinal grooves or slots, *a''*, of sufficient depth to receive therein rods *e* and permit said rods to lie entirely below the surface of the cylinder, so as not to interfere with the action of the brake-bar, hereinafter described. These rods are slightly longer than the cylinder and project beyond the ends thereof. The disks *a* *a'* are provided on their inner surfaces, respectively, with an annular groove or channel, *a³*, adapted to receive the ends of the rods *e*. Upon each of these rods is mounted a curtain or sheet, *d*. The disks are screwed or otherwise secured to the ends of the shaft *b*, and the rods *e*, which are slender, are readily sprung into their seats or removed therefrom with the curtains attached, thus affording a ready means of removing one sheet and substituting another. I therefore consider this a preferable method of applying the sheets. These sheets are preferably in width equal to the distance between disks *a* and *a'*, and in length and depth sufficient, as indicated, to extend when suspended to near the bottom of the case, thus utilizing the available space for the purpose for which the apparatus is designed.

On the periphery of one of the disks *a* ratchet-teeth *i* are provided. (Shown by dotted lines in Fig. 2.) The bar *j*, having a bearing on the inner surface of the case end, is designed to extend through the end of the car to be manipulated by the conductor. Bar *j* has bearings that admit of longitudinal play thereof within proper limits, and is provided with an actuating-pawl, *j'*. By this arrangement provision is made for rotating the disks and sheets, though I do not design limiting myself in this feature of the apparatus. Secured to the face of the upper portion of the case is a brake-bar, *k*, the edge of which is under pressure of a spring or springs, *k'*. This bar extends, or preferably so, from side to side of the case, and its edge, which should be parallel to the axis of rotation of the curtains or sheets, bears upon the latter. The free ends of the sheets should also be cut to a line parallel to the line of the axis of rotation. The sheets have attached to their free ends small strips or bars *d'*, that are

sufficient in weight to cause the sheets to drop promptly and hang smoothly when released. A door, A', in the front of the case is hinged at *t* and secured by suitable fastenings at the bottom that will give access to the case. Door A' is of glass, excepting the necessary frame for holding the latter, thus exposing to view the front surface of the first suspended sheet, *d*. At the top of the door A' may be supplied the words "Next street," as shown, as a complement to the street-names. On the sheet-fronts, respectively, are affixed, by painting or in any desired manner, the names of the streets in the order of succession for the trip. The balance of the space on the sheet-front may be devoted to advertising-cards. The movements of the ratchet-disks are designed to be such that an outer end of one curtain at each stroke of the bar *j* shall be released from beneath the brake-bar *k* to drop down and another brought beneath it. A curtain may thus be dropped as each street is passed, to indicate the name of the next. It is obvious from the drawings and foregoing description that a large number of sheets may be contained in an operative manner in a comparatively small compass, and, as before stated, meet the requirements as to numerical quality that are unattainable by the continuous sheet. The various details of construction and arrangement, as I have shown and described them, are not essential to the success of my invention, as modifications thereof may be substituted. The features, however, that do form its essential elements have their foundation in the fact of mounting a number of sheets upon a rotatable bearing, with the outer ends free to successively drop, and adapted to be retained until released by rotation of the central support.

The invention may of course be used for one or the other of the purposes named, or may be used for advertising independently of a car—for example, may be placed in a show-window and operated by automatic mechanism for bringing the curtains successively into position for exposing their faces or the advertising-cards thereon.

Having thus described my invention, what I claim, and desire to protect by Letters Patent, is—

1. A street or station indicator consisting of a case, A, and a revoluble displaying-drum journaled within said case, and consisting of a central shaft, *b*, disks *a a'*, mounted upon said shaft and provided with seats upon their inner surfaces, rods *e*, of flexible material, having

their ends sustained within said seats, whereby said rods may be readily sprung into and out of place, and display-sheets attached to said rods, substantially as described.

2. A street or station indicator consisting of an inclosing-case, A, a revoluble display-drum journaled within the upper part of said case and provided with an annular series of dependent flexible display-sheets, said sheets being loaded at their lower ends, and a spring-actuated swinging bar resting upon said sheets and connected by a pivotal joint to the inside of the case, and engaging consecutively the weighted ends of the display-sheets, substantially as described.

3. A street or station indicator consisting of an inclosing-case, A, having a glass door at its lower part and a revoluble display-drum journaled within its upper part, said drum consisting of a central shaft, *b*, disks *a a'*, mounted upon said shaft and provided with annular seats upon their inner surfaces, rods *e*, of flexible material, having their ends sustained within said seats, display-sheets loaded at their lower ends and attached to said rods, a swinging bar connected by a pivotal joint to the inside of the case and resting upon said sheets, and a spring, *k'*, intermediate between said bar and case, substantially as described.

4. A street or station indicator consisting of an inclosing-case, A, and a revoluble display-drum journaled within said case and composed of a central shaft, *b*, disks *a a'*, mounted upon said shaft, one of said disks having upon its periphery a series of ratchet-teeth, a sliding bar, *J*, journaled within said case and projecting therefrom, said bar being provided with a spring-pawl engaging with the ratchet-teeth and with stops for limiting its throw, and display-sheets dependent from the drum, substantially as described.

5. A street or station indicator consisting of an inclosing-case, A, a revoluble display-drum journaled within said case and composed of a central shaft, *b*, provided with a series of longitudinal grooves or channels, disks *a a'*, secured to the ends of said cylinder and having on their inner surfaces, respectively, annular seats, and flexible rods *e*, adapted to lie within the grooves of the cylinder and have their ends secured in said seats, substantially as described.

WILLIAM P. WILLIAMS.

Witnesses:

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R. S. WEBSTER.