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F. W. BROOKS.

PASSENGER AND STATION INDICATOR.

No. 180,457. Patented Aug. 1, 1876.

Fig. 1

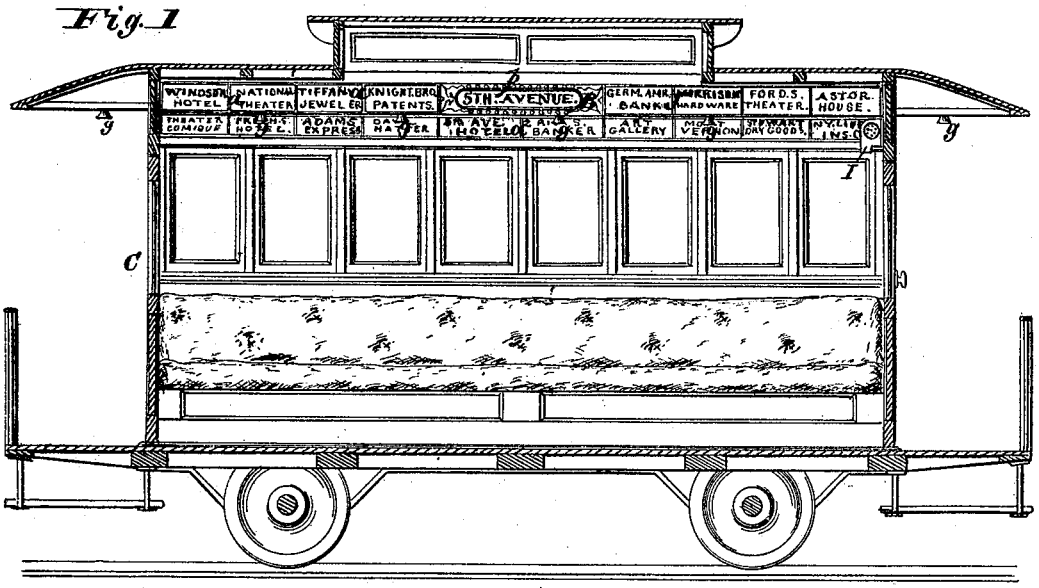

Fig. 2.

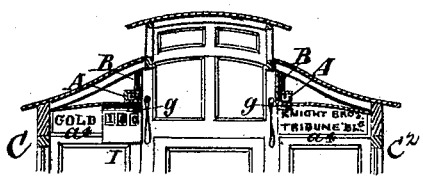

Fig. 3.

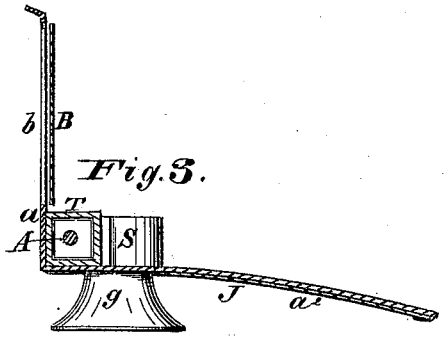

Fig. 4.

WITNESSES

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Fig. 5.

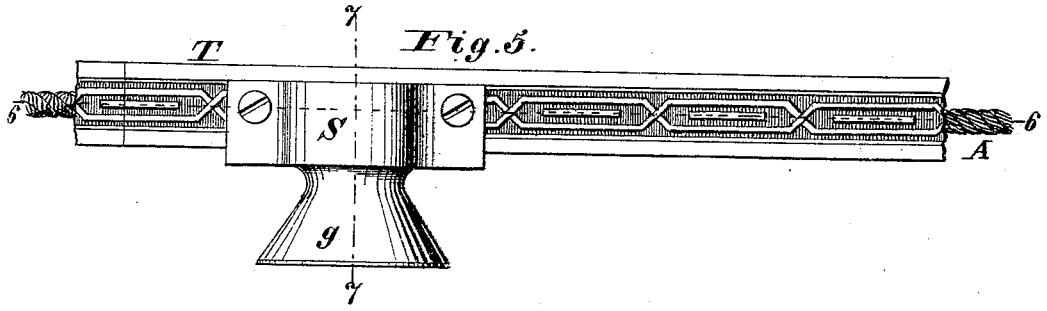

Fig. 6.

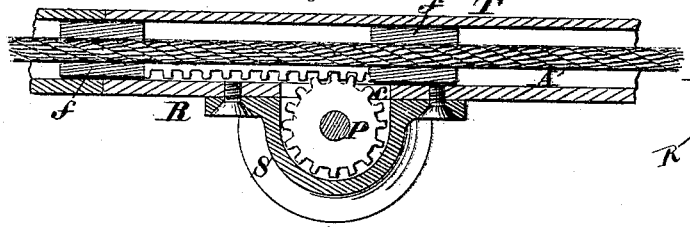

Fig. 7.

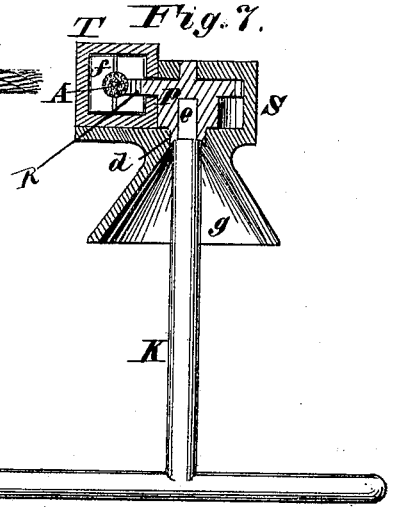

Fig. 8.

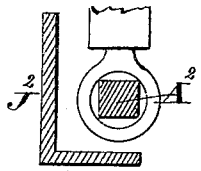

Fig. 9.

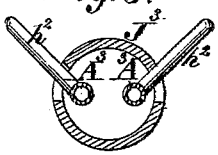

Fig. 10.

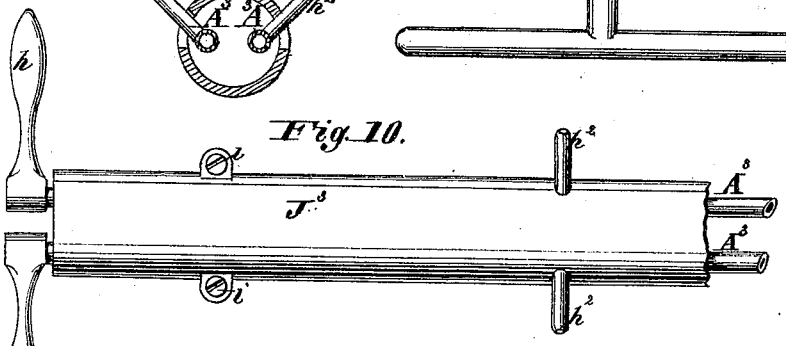

Fig. 11.

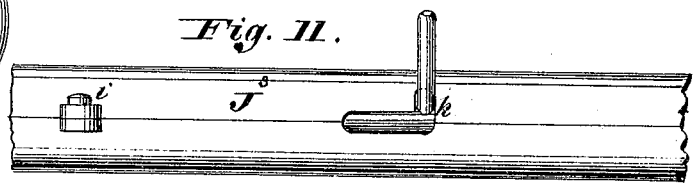

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Fig. 12.

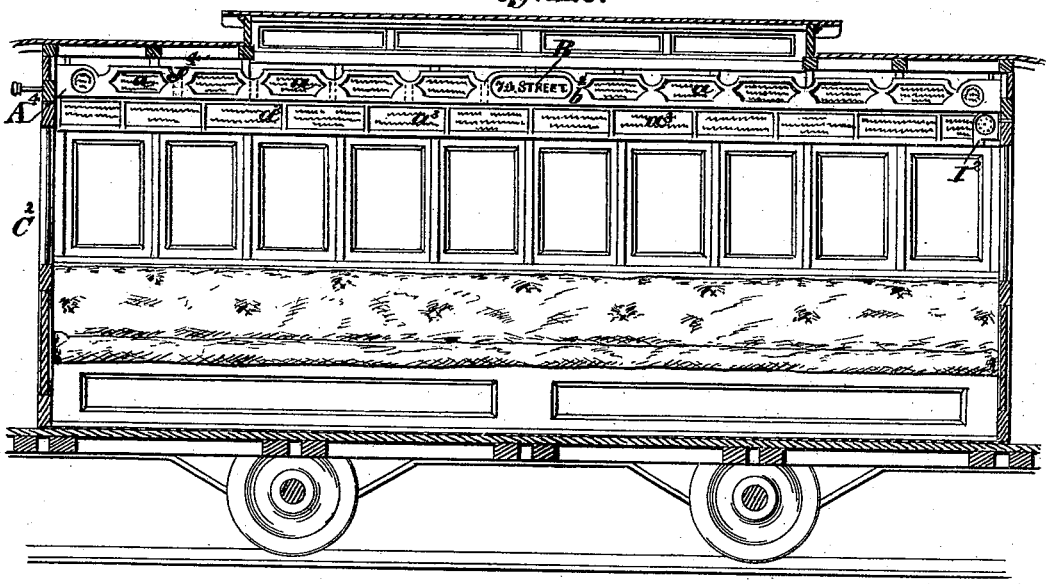


Fig. 13.

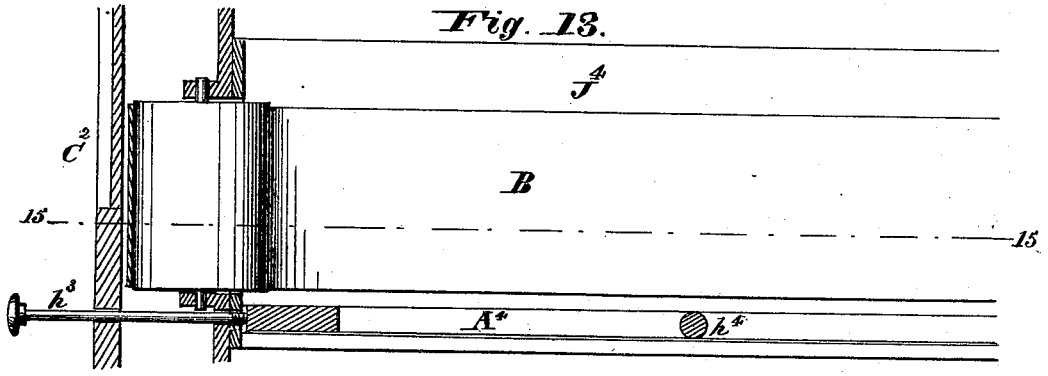


Fig. 14.

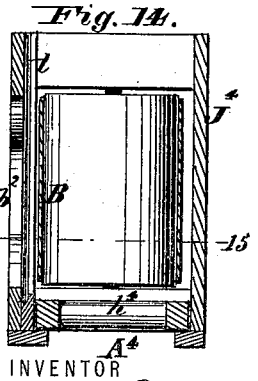
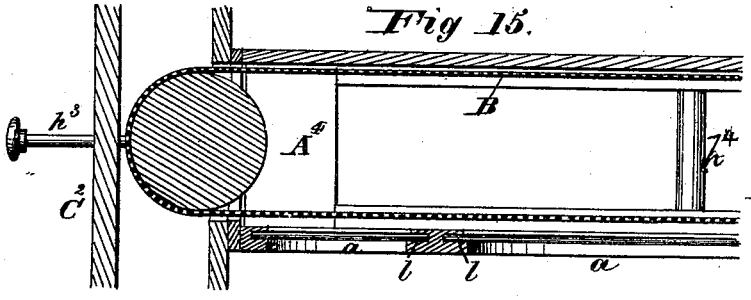


Fig 15.



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UNITED STATES PATENT OFFICE.

FRANKLIN W. BROOKS, OF NEW YORK, N. Y.

IMPROVEMENT IN PASSENGER AND STATION INDICATORS.

Specification forming part of Letters Patent No. **180,457**, dated August 1, 1876; application filed June 3, 1876.

To all whom it may concern:

Be it known that I, FRANKLIN W. BROOKS, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Passenger and Street Indicators, of which the following is a specification:

This invention relates to the application of passenger-indicators and street or station indicators to street-cars; and it relates to that form of passenger-indicator in which the actuating device is extended overhead from platform to platform, and adapted to be manipulated by the conductor at intermediate points, as illustrated and described in my Patent No. 175,656, dated April 4, 1876.

The present invention consists, first, in a shield or jacket for protecting or masking such actuating device, so as to prevent its accidental or mischievous manipulation or injury by passengers; secondly, in a street or station indicator formed by the said shield or jacket, in combination with an endless belt, or its equivalent, carrying the names; thirdly, in an advertising shield or jacket, serving to protect or mask the actuating device of the passenger-indicator, and also to increase the advertising capacity of the car; fourthly, in superior means for pulling or reciprocating a flexible actuating-rope or its equivalent; and, fifthly, in a simple and efficient key-guide, applied to this device to facilitate its rapid operation, as hereinafter more fully described.

Figure 1 represents a vertical longitudinal section of a street-car provided with a combined passenger-indicator, street-indicator, and advertising device, illustrating the several features of this invention. Fig. 2 represents a vertical transverse section of the upper part of the same. Fig. 3 represents a transverse section of the attachment on a larger scale. Fig. 4 represents a bottom view of a portion of the same. Fig. 5 is an edge view of the inner part of the same. Figs. 6 and 7 represent sections of this on the lines correspondingly numbered. Figs. 8 and 9 represent transverse sections of shields or jackets of different shapes, applied to the actuating devices, illustrating certain modifications. Figs. 10 and 11 are, respectively, a top view and a side elevation of the shield or jacket and actuating devices shown in Fig. 9. Fig. 12 represents a vertical longitudinal section of another car provided with a combined passenger-indicator, street-indicator, and advertising device, illustrating additional modifications. Fig. 13 represents a vertical longitudinal section, and Fig. 14 a vertical transverse section, of this attachment on a larger scale. Fig. 15 represents a horizontal section on the line 15 15, Fig. 13.

Like letters of reference indicate corresponding parts in the several figures.

C C^2, Figs. 1, 2, and 12, represent ordinary street-cars; and I I^2, passenger-indicators of the form described in my Patent No. 175,656, arranged within such cars at the ends, in customary position.

A A^2, Figs. 2, 3, 4, 5, 6, and 7, represent a preferred form of actuating device for said passenger-indicators, the same consisting of small wire ropes, which extend from one end of the car to the other, overhead, as usual. J J represent shields or jackets inclosing said actuating-ropes, and attached to the roof of the car. These shields or jackets comprise inner tubes T, to support the flexible actuating-ropes. The outer part of each may be made of sheet metal, and, extending vertically from below the rope to the roof above, and horizontally from the rope to an intersection with the arched roof, it affords two extended ranges of advertising-spaces, a a^2, while it in no way obstructs the present advertising-spaces a^3 a^4. The advertising capacity of the car is thus greatly increased, and the revenue of its owners is correspondingly augmented, while advertisers derive the advantage of an extension of this popular advertising medium, and increased facility for display is afforded.

The bottom of the shield or jacket may be inclined more or less, as indicated in Fig. 3, to expose its advertising-spaces a^2.

The advertisements may be attached in the form of cards or small signs, or may be painted upon the shield or jacket, as preferred.

B B represent belts or aprons carrying the names of crossed streets or avenues, or of stations, as the case may be, which are exposed successively through openings b, the latter being formed in the vertical sides of the shields or jackets J, which inclose said belts

or aprons, and form therewith street or station indicators. The great length of casing thus conveniently afforded facilitates the employment of simple endless belts of suitable flexible material; but the special form of the vehicle, and the means by which the conductor or driver, or the wheels or axles, will actuate the same, form no part of the present invention, and will not therefore be particularly described. Any of the well-known devices now in use may be employed.

One of the devices for manipulating the inclosed actuating-ropes A at different points is shown in detail in Figs. 6 and 7. R represents a short rack attached to the rope (by solder) opposite a slot, *c*, in one side of the tube T, and held normally by the retracting-spring of the indicator, or by a separate spring or weight in position to be advanced the proper length for the required movement. P represents an intermeshing pinion, constructed with a socket, *d*, fitted to the bit *e* of a key, K, Fig. 7. By inserting and turning the latter the rope is pulled or reciprocated with great facility, through the medium of the rack and pinion. By employing a rack of proper length and giving it sufficient end-play, any strain of the parts, by turning the key farther than necessary or by turning it in the wrong direction, is prevented. The rack may be held in mesh with the pinion by a guide-coupling, *f*, at an adjacent transverse joint of the tubing, or by an abutment-guide opposite the slot. The pinion is inclosed in a housing or shell, S, attached to the tube T by screws, and provided with a funnel-shaped key-guide, *g*, leading to the socket of the pinion. The key can consequently be inserted very readily, while this provision is made with the utmost facility.

J^2, Fig. 8, represents a shield or jacket employed in connection with an angular actuating-rod, A^2. The shield or jacket in this case only partially incloses the actuating device, giving access for the conductor's wrench, while it precludes grasping the rod with the hand so as to turn or bend it. The shape of the shield or jacket in cross-section is not essential.

Figs. 9, 10, and 11 illustrate the employment of a shield or jacket, J^3, in the shape of a round tube, in contrast with the square tube T. (Shown in Fig. 7.) They also illustrate the adaptation of a single shield or jacket to inclose two or more actuating devices for registering different fares, &c; also, the adaptation of the same for the two-motion actuating devices described in my Patent No. 175,656, hereinbefore referred to, and the employment of actuating-tubes A^3. The latter, in the illustration, are provided with lever-handles *h* h^2 at their ends and at intermediate points, by which to manipulate them.

The shield or jacket J^3 is composed of longitudinal sections united by screws *i i*, and is constructed with L-shaped slots *k*, to accommodate and guide the handles h^2. The return movements of the handles are made by a spring or springs, which may be located in the indicator, or within the shield or jacket, as preferred.

Figs. 12 to 15, inclusive, illustrate the employment of a shield or jacket, J^4, open at bottom to give access to a slide, A^4, having an end knob, h^3, and intermediate cross-bar handles h^4, which constitute the indicator-actuating device. The jacket J^4 and slide A^4 are adapted to be made of wood, and the latter operates by a thrust, instead of a pull or turn. *a* a^3 represent, respectively, the new and the old advertising-spaces. The former are defined by ornamental orifices in the face of the jacket, and vertical cleats *l*, having grooves to receive the edges of the cards or tablets, are attached internally between the orifices, so as to hold the cards or tablets in place.

Both vertical sides of the jacket J^4 could obviously be provided with advertising-spaces *a* and indicator-openings *b*, if preferred. The knob h^3 of the slide A^4 could also be disconnected and made self-locking, so as to prevent its accidental operation, or the slide could be made to operate by a pull instead of a thrust, without material modification.

The ropes A, rod A^2, and tubes A^3 are intended to be made in one or more parts, with screw-couplings or their equivalent at the joints; and a simple rod or wire can obviously be substituted for the ropes or tubes, or tubes be employed in lieu of the ropes, without materially affecting the described operation of the respective devices in which the same are employed.

I claim as new in this my present invention—

1. A longitudinal shield or jacket, as herein specified in combination with the actuating device of a passenger-indicator, for protecting or masking said actuating device, in the manner set forth.

2. The combination of a shield or jacket for the actuating device of a passenger-indicator, and an endless belt or its equivalent, carrying the names of cross-streets or stations, the former inclosing the latter, and provided with an aperture or apertures, through which the names are successively exposed or exhibited, substantially as herein shown and set forth.

3. The pinion P, adapted to be actuated by a key, and arranged within a lateral opening in the shield or jacket J, in combination with the intermeshing longitudinal rack R within the shield or jacket, substantially as shown and described, for the purpose specified.

4. In combination with an inclosed actuating device for passenger-indicators, as herein illustrated and described, the pinion P, constructed with an axial socket, *d*, and the key-guide *g*, arranged with reference to said socket as specified, for the purpose set forth.

FRANKLIN W. BROOKS.

Witnesses:
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ABNER C. THOMAS.