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STREET INDICATOR FOR CARS.

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991,678.

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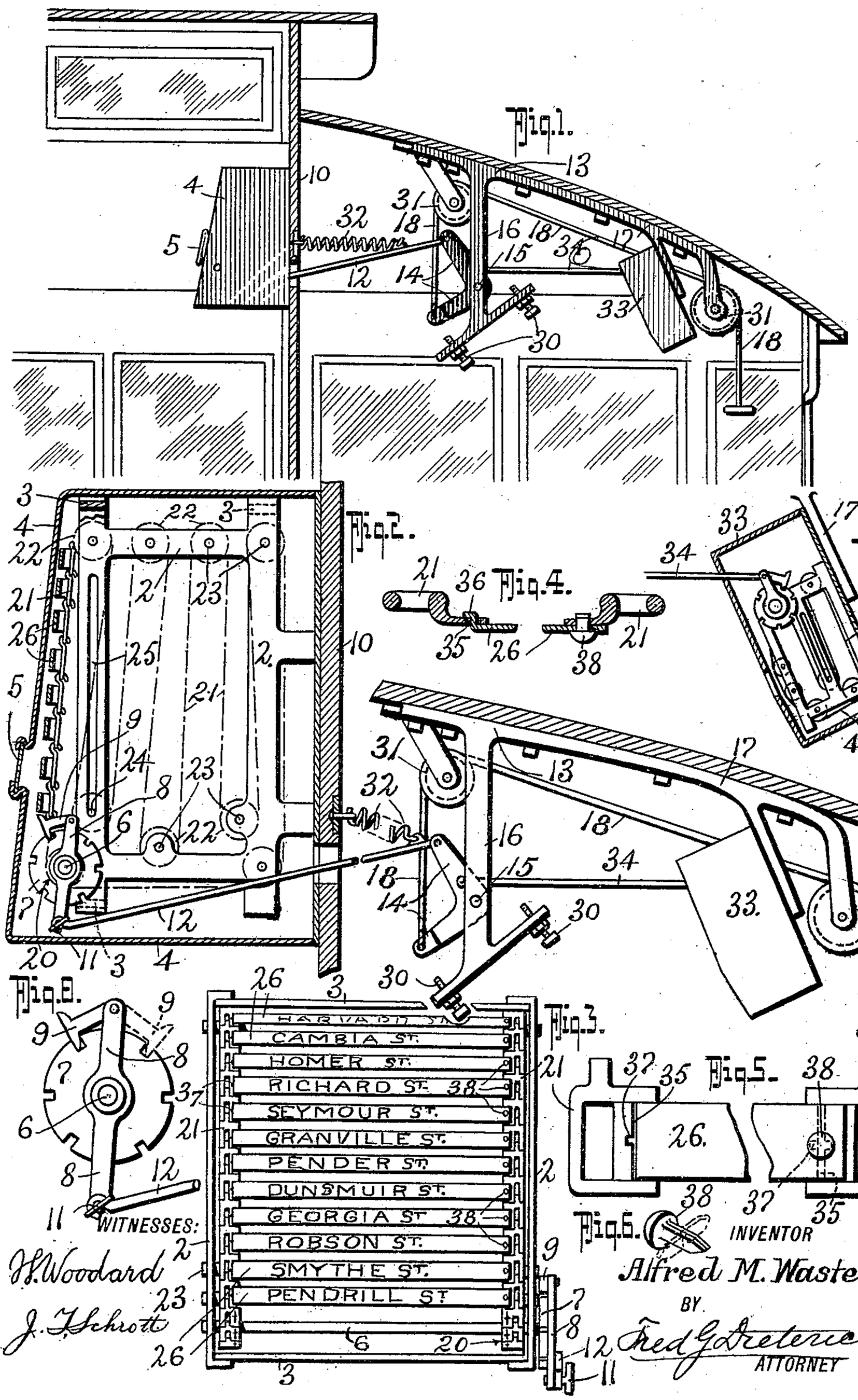

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STREET-INDICATOR FOR CARS.

991,678. Specification of Letters Patent. Patented May 9, 1911.

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To all whom it may concern:

Be it known that I, ALFRED M. WASTELL, citizen of the Dominion of Canada, residing at New Westminster, in the Province of British Columbia, Canada, have invented a new and useful Street-Indicator for Cars, of which the following is a specification.

This invention relates to a street or station indicator for street railways or the like and belongs to that class where the mechanism to expose the name of the next street or station that the car will stop at is operative by a car attendant.

The rule is common now in all street car systems for the conductor to announce the name of the next stopping place immediately after the car has left the last, but this duty is seldom performed in a satisfactory manner as, while the conductor is collecting fares, he is liable to forget to announce the names of the next stop and when he does it is seldom intelligible, even to people conversant with the locality and is absolutely unintelligible to strangers.

My object has been to provide a mechanical means for displaying to the passengers within the car the printed name of the next street or station the display of the name being operated by the motorman while the car is at rest and just before starting, at which time he has no duties to perform that will conflict. By the same operation the same sign is displayed on a smaller replica instrument in front of the motorman that he may see that the correct sign is displayed on the car.

The invention is particularly described in the following specification, reference being made to the drawings by which it is accompanied, in which:

Figure 1 is a sectional view of the car showing the general arrangement of the indicator and its replica, Fig. 2, an enlarged detail of the indicator with its casing in section, and Fig. 3, a front view with the casing removed. Figs. 4 and 5, enlarged details showing the manner of attachment of the name plates to the machine, and Fig. 6, a perspective detail of the split fastener. Figs. 7 and 8 are enlarged detail sections of parts of the invention.

The indicator is secured to the inside of the front end partition 10 of the car and faces toward the passengers.

It consists of an open metal frame composed of side frames 2 maintained the required distance apart by cross members 3 at the top and bottom. This frame is inclosed in a sheet metal casing 4 having an aperture 5 across the lower part of the front, through which aperture the street or station names on the route are successively displayed.

An endless chain 21 of special links, to be described later, is carried back and forth over chain wheels 22 rotatable on studs 23 projecting inward from each side frame, and toward the lower part of the front of the frame these chains pass over chain wheels 20 that are secured on a cross shaft 6 that is rotatable in the side frames and by which the chains are operated to display through the aperture 5 of the front casing the street or station names that are on narrow sign plates 26 removably secured to the chains and extending across between them.

The shaft 6 is operated through the arc required to move the station sign forward by a lever 8 free on the end of the shaft 6 outside of the side frame 2, one end of which lever carries a reversible pawl 9 to engage the teeth of a pawl wheel 7 secured on the shaft 6. The outer end of the pawl lever 8 has a stud or pin 11 to which a rod 12 is connected preferably by an open gab or hook that it may be lifted off the pin 11 when it is desired to disconnect the indicator. The rod 12 passes through the front end partition 10 of the car and connects to one arm of a bell crank 14 mounted on a pin 15 on a bracket 16 secured at 13 to the under side of the car roof, which bracket is provided with adjustable stop screws 30 by which the movement of the bell crank 14 may be limited. From the other arm of the bell crank 14 a cord 18 leads over a sheave 31 and hangs in a convenient position for operation by the motorman. Thus by pulling the cord 18 the pawl wheel 7 is, by means of the bell crank 14, connecting rod 12 and pawl lever 8, rotated through an arc that will move the chains 21 a sufficient distance to expose the name of the next street, and the pawl lever and its connected parts are returned by a spring 32 applied to any convenient part. On reaching the end of the route the pawl 9 is reversed to rotate the pawl wheel in the opposite direction, and during the return journey the chains of station sign plates are run back.

One pair 24 of the chain wheel studs is movable in slots 25 in the side frames 2 to

allow for the variation in the length of the station sign carrying chains 21 when station signs require to be removed or added.

To enable the motorman to readily see that the correct street or station is displayed on the indicator within the car a small replica of it, 33, is secured to an extension 17 from the roof bracket 16 which carries the bell crank. This replica is operated in the same manner as the large one within the car by a pawl and pawl wheel, the pawl lever being connected by a rod 34 to an arm of the bell crank 14 at a smaller radius than 12 is connected to, so that the two indicators are operable simultaneously. The replica may be of simpler construction and the street names may be printed on a tape 40 having a positive eyeleted engagement with the driving wheel.

To enable the station name plates 26 to be readily removed or changed the chains 21 are made of special links having on their inner sides narrow slots 35 to receive a backwardly bent offset 36 of the plate, and in the middle of each slot is a small cross slot 37 designed to receive the split ends of a button headed fastener 38 which ends are bent over at the back of the link and hold that end of the station plate to it. The bent end of the station plate is first inserted in the slot of the link at one side and the fastener is thereafter inserted and folded in the other, with which fastening the plates may be readily changed when required.

Having now particularly described my invention and the manner of its operation, I hereby declare that what I claim as new and desire to be protected in by Letters Patent, is:

In a street car indicator, a casing mounted within the car, an open frame in said casing, a driving shaft rotatable in said open frame, an indicator mechanism driven by said driving shaft, a pawl wheel secured to said driving shaft, a lever carrying a reversible pawl pivotally mounted on said driving shaft adjacent to said pawl wheel, a bell crank mounted on the outside of the car, a connecting rod between one arm of said bell crank and said pawl lever, a pull cord connected to the other arm of said bell crank, a spring for moving the bell crank in a direction opposite to the pull of the cord, an auxiliary indicator mounted in the vestibule of the car and including an operating shaft, a crank on said last named operating shaft and a connecting rod between said crank and said bell crank lever, a bracket on which said bell crank lever is mounted, said bracket having a pair of arms, adjustable stops carried by said arms for limiting the movement of said bell crank lever.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED M. WASTELL.

Witnesses:
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ALEXANDER SMITH.