May 13, 1930. W. S. SHAW 1,758,476

STREET INDICATOR

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Fig. 1.

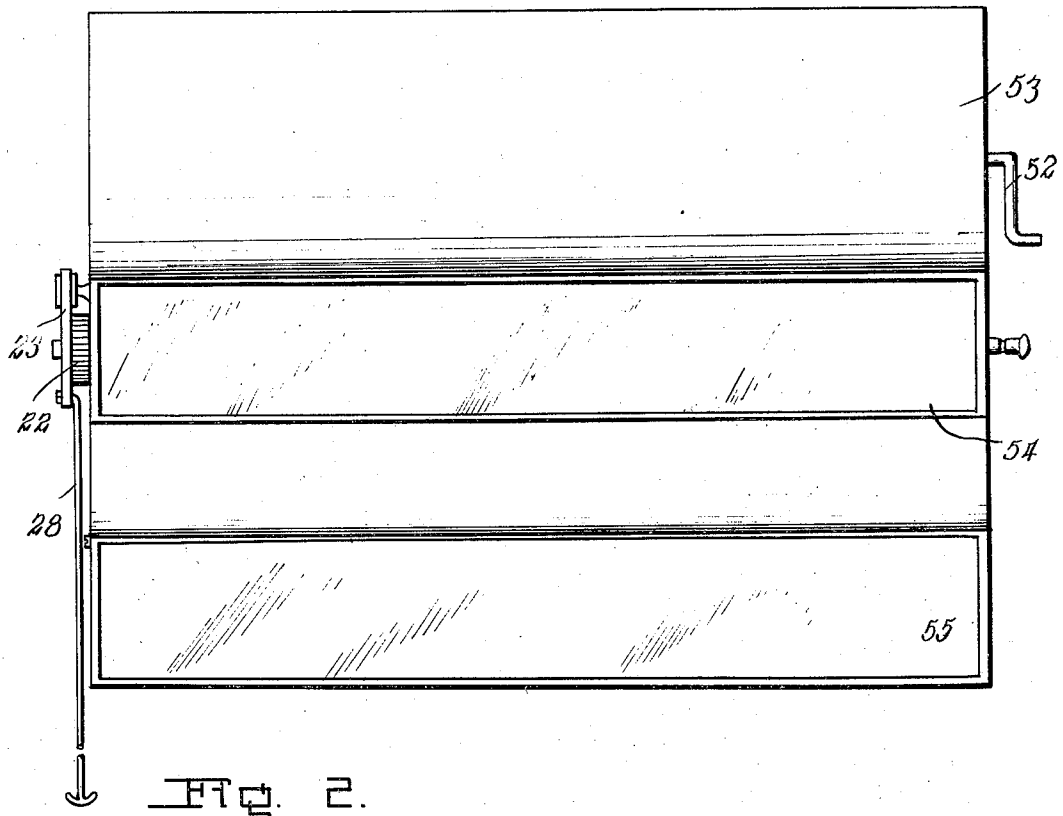


Fig. 2.

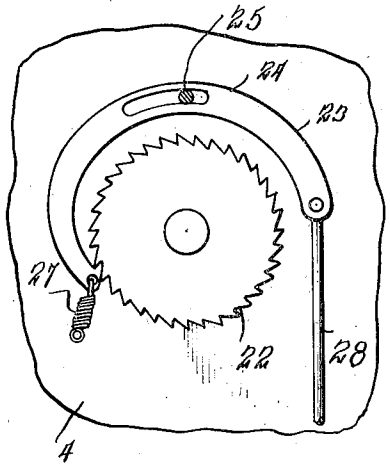
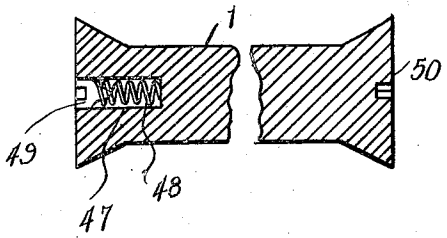


Fig. 3.



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Fig. 4.

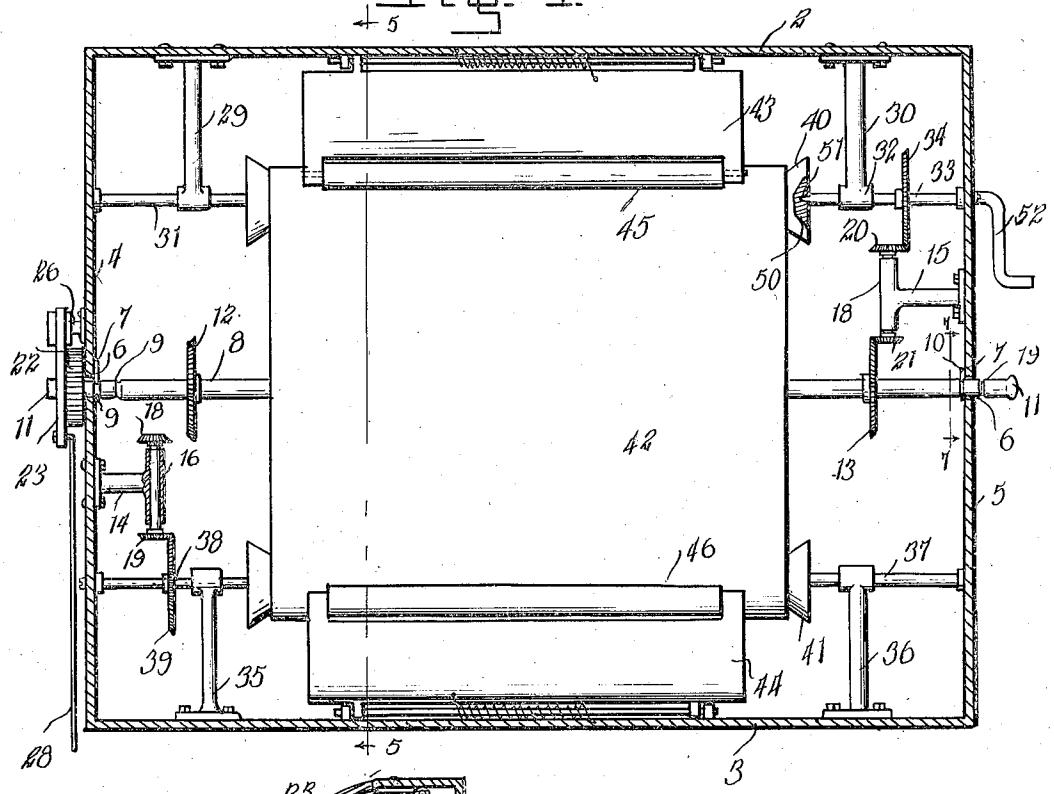


Fig. 5.

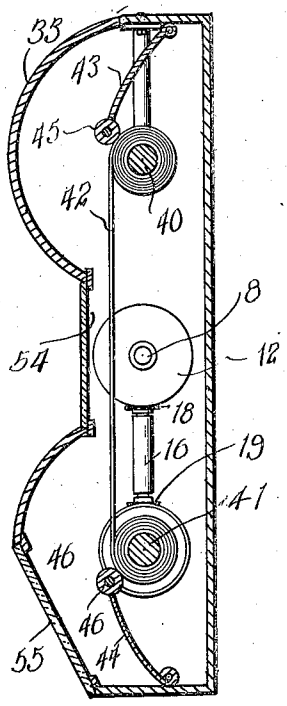


Fig. 6.

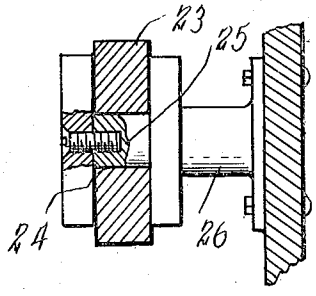
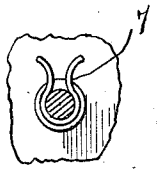


Fig. 7.



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UNITED STATES PATENT OFFICE

WILLIAM SIDNEY SHAW, OF BOISE, IDAHO

STREET INDICATOR

Application filed August 23, 1928. Serial No. 302,871.

The present invention is directed to improvements in street indicators.

The primary object of the invention is to provide a device of this character so constructed that it can be conveniently attached to a motor bus or street car in order that the driver thereof can operate the same to display the name of the street being approached.

Another object of the invention is to provide a device of this character so constructed that the driver of the vehicle can conveniently operate the device after leaving one street intersection to indicate the next street, the construction being exceedingly simple in construction, efficient in operation, and one which can be manufactured at a small cost.

Another object of the invention is to provide a street indicator having novel means for changing the winding direction of the web bearing the street names from one roller to another.

Another object of the invention is to provide means whereby the web will be maintained tightly rolled and held against wrinkling or warping.

With these and other objects in view, this invention resides in the novel features of construction, formation, combination and arrangement of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which:—

Figure 1 is a front view of the device.

Figure 2 is a fragmentary side elevation.

Figure 3 is a longitudinal sectional view through one of the rollers.

Figure 4 is a view of the casing with the working parts contained therein exposed.

Figure 5 is a sectional view on the line 5—5 of Figure 4.

Figure 6 is a detail view of the pawl supporting bracket.

Figure 7 is a sectional view on line 7—7 of Figure 4.

Referring to the drawings, 1 designates a casing adapted to be secured in any suitable manner in convenient reach of the driver of a motor bus, and in a position to be readily seen by the passengers.

The casing includes top and bottom walls 2 and 3, respectively, and connecting side walls 4 and 5, said side walls having openings 6—6 formed therein and associated with said openings are bowed leaf springs 7—7, the purpose of which will appear later.

A driving shaft 8 is provided and has its ends slidable in the openings 6—6, said shaft having annular grooves 9—9 and 10—10 formed adjacent the terminal knobs 11 thereof, said grooves cooperating with the springs 7 to hold the shaft 8 in different positions of longitudinal adjustment. This shaft has fixed thereto beveled gears 12 and 13.

Secured to the side walls 4 and 5 are brackets 14 and 15, respectively, the former being arranged above the shaft 8 while the latter is disposed below the same, said brackets having bearing sleeves 16 and 17. Journaled in the sleeve 16 is a shaft 18 having fixed to its upper and lower ends beveled gears 18 and 19, there being a shaft 20 journaled in the sleeve 18 and to which is secured the beveled gears 20 and 21. The shaft 8 has fixed on one end thereof a ratchet wheel 22 which is intermittently rotated by the pawl 23, said pawl being provided with an arcuate slot 24 for slidably and pivotally engaging the hub carried by the bracket 26.

The bracket 26 is suitably secured to the outer surface of the wall 4 of the casing. The coil spring 27 connects one end of the pawl to the casing wall 4 while the other end of the pawl has secured thereto the upper end of the pull rod 28 which is suspended in convenient reach of the driver in order that the pawl can be actuated to intermittently rotate the wheel 22, and thus the shaft 8.

Secured to the top wall of the casing 1 is a pair of spaced brackets 29 and 30, there being a shaft 31 rigidly supported by the bracket 29, while rotatably supported in the bearing 32 of the bracket 30 is a shaft 33 having fixed thereto a beveled gear 34 which constantly meshes with the gear 20.

A pair of brackets 35 and 36 are supported by the bottom wall 3 of the casing, the latter having fixed thereto a shaft 37, while rotatable in the bracket 35 is a shaft 38, said shaft having a beveled gear 39 fixed thereto, which constantly meshes with the gear 19.

Upper and lower rollers 40 and 41 are employed and windable thereon is a web 42 upon which is printed the names of the streets intersecting the route of the bus.

Yieldably and pivotally supported by the top and bottom walls 2 and 3 of the casing are plates 43 and 44 which are provided with hard rubber rollers 45 and 46, respectively, adapted to rest upon the web 42 to hold the same compactly wound and to prevent warping and wrinkling thereof when being wound from one roller to the other.

The rollers 40 and 41 have one of their ends provided with a recess 47 in which is mounted a coil spring 48, and engaged with the said spring is a bearing 49, the reverse ends of said rollers having squared sockets 50 formed therein. It will be obvious that the bearing 49 of the upper roller will engage the shaft 31, while the similar bearing of the lower roller will engage the shaft 37. The shafts 33 and 38 are provided with squared heads 51 which are adapted to engage the sockets 50 so that when rotary movement is imparted to either of said shafts the rollers will be compelled to rotate to wind or unwind the web.

To set the web at any point a crank handle 52 may be applied to the shafts 33 and 38. When the web is being reset it is not necessary that the drive shaft be driven, therefore the same is moved to a position to throw the gears 12 and 18 and 13 and 21 out of mesh, this being very easily accomplished upon moving the shaft to a neutral position.

The rollers can be conveniently removed upon forcing the same in a direction to compress the springs 48 sufficiently to permit the socket 50 to be removed from engagement with the shafts 33 and 38.

The casing 1 is provided with a cover 53 in which is provided a sight opening 54, in order that the names of the streets indicated upon the web can be readily seen by the passengers. The cover is further provided with a rear view mirror 55.

As shown in Figure 4 the gears 21, 20 and 24 are driven by the gear 13 when the shaft is rotated upon actuating the pawl 22, thus winding the web from the lower roller upon the upper roller. To reverse the winding of the web the shaft is moved to the left so that the innermost groove 9 and the outermost groove 10 of the shaft will engage the springs 7—7 to hold the shaft in a position to throw the gear 12 in mesh with the gear 18.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape and proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

What is claimed is:—

1. A street indicator comprising a casing, a driving shaft journaled in the casing, gears fixed to the driving shaft, upper and lower rollers, a web windable upon the rollers, a rotatably supported shaft for supporting one end of each roller, a fixed shaft supporting the other end of each roller, gears carried by each of said rotatable shafts for selective engagement with the gears of the driving shaft to rotate the rollers upon rotation of the driving shaft, and means for intermittently rotating the driving shaft.

2. A street indicator comprising a casing, a driving shaft journaled in the casing and having gears fixed thereto, upper and lower rollers, a rotatably supported shaft for driving each roller independently of the driving shaft, a gear on each of said shafts, a geared connection between the gears of the driving shaft and gears of the roller driving shafts, the driving shaft being shiftable longitudinally to selectively drive the geared connections for selectively operating the roller driving shafts, and means for intermittently rotating the driving shaft.

3. A street indicator comprising a casing, a driving shaft journaled in the casing, upper and lower rollers in the casing, a rotatable shaft engaged with one end of each roller, a gear fixed to each shaft, gears fixed to the driving shaft, two sets of gears rotatably supported in the casing, one gear of each set being constantly in mesh with the gear of a roller engaging shaft, means for shifting the driving shaft to move one or the other of the gears thereon into mesh with either of the other gears of each set to positively rotate a selected roller, a web windable on the rollers, a ratchet wheel fixed to one end of the driving shaft, and a pawl carried by the casing for driving the wheel to intermittently drive the driving shaft.

In testimony whereof I affix my signature.

WILLIAM S. SHAW. [L. S.]