April 17, 1928. 1,666,550

E. L. BUTLER

STREET INDICATOR

Filed March 30, 1927

Fig. 1.

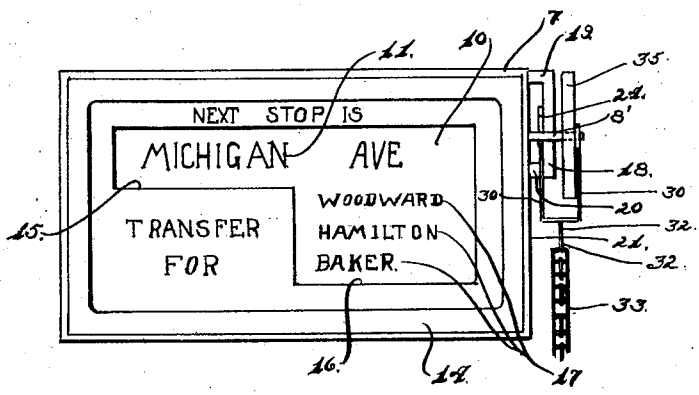


Fig. 2.

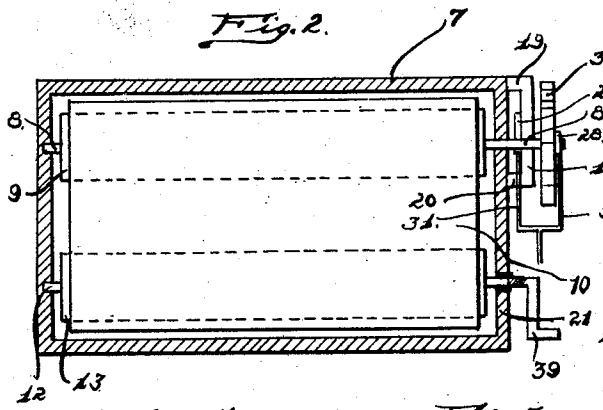


Fig. 3.

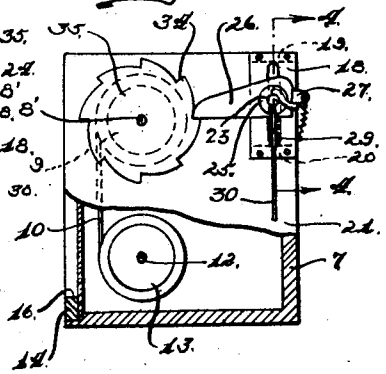


Fig. 4.

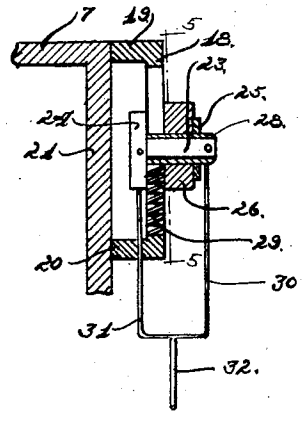
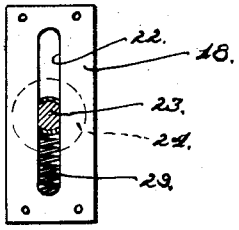


Fig. 5.



INVENTOR.

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ATTORNEY.

Patented Apr. 17, 1928. 1,666,550

UNITED STATES PATENT OFFICE.

EMANUEL L. BUTLER, OF DETROIT, MICHIGAN.

STREET INDICATOR.

Application filed March 30, 1927. Serial No. 179,689.

My invention relates to new and useful improvement in a street indicator adapted for use on vehicles particularly street cars and the like.

The invention is intended to serve as a medium whereby the occupants of the street car may be apprised of the stops of the vehicle as the stops are approached, and to provide a mechanism adapted for this purpose, which will be simple in structure, economical of manufacture and highly efficient in use.

Another object of the invention is the provision of a device of this class which will be compact so as to occupy a minimum amount of space.

Another object of the invention is the provision of a manually operable device of this class, whereby the operator of the vehicle may operate the mechanism to successively display the names of various stops as they are approached.

Other objects will appear hereinafter.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood by a reference to the accompanying drawings which form a part of this specification and in which,

Fig. 1 is a front elevational view of the invention.

Fig. 2 is a central longitudinal vertical sectional view of the invention.

Fig. 3 is an end elevation with parts removed, parts in elevation, and parts in section.

Fig. 4 is a fragmentary sectional view taken on substantially line 4—4 of Fig. 3.

Fig. 5 is a sectional view taken on substantially line 5—5 of Fig. 4.

As shown in the drawings the invention comprises a housing 7 in which is rotatably mounted on a shaft 8, a roller 9, upon which is adapted to be wound a flexible strip 10 on which names of streets or other indicating media 11 may be printed or otherwise displayed to indicate the next stop which the vehicle will approach. Journalled in the side walls of the housing 7 is a shaft 12, upon which is mounted a roller 13 upon which the strip 10 is originally wound, so that it is unwound from the roller 13 as it is wound on the roller 9. The housing 7 is provided with a front wall 14 having an open space 15 formed therein so as to expose to view the name 11 of the next stop approached. This opening 15 communicates with a larger opening 16, through which may be exposed the names of transfer lines 17 appearing on the strip 10, so that when a transfer point is approached the various lines to which transfer may be made will also be indicated by the device. The shaft 8 is provided with an exteriorly projected portion 8′ which extends through the bight 18 of a U-shaped member, the legs 19 and 20 of which engage the end wall 21 of the housing, this U-shaped member being secured to the housing and wall by means of suitable screws or bolts. The bight 18 is provided with an elongated slot 22, positioned slidably in which is a stud 23 having a head 24 positioned between the bight 18 and the end wall 21. A washer 25 is mounted on the stud 23 and serves to retain, in pivotal mounting on said stud, a dog 26 on which is formed a shoulder 27. A bushing 28 is positioned about the stud 23 and engages one end of a spring 29, the other end of which engages the bottom of the slot 22.

As shown in Fig. 5 the stud 23 is formed flat at opposite sides to prevent its rotation in the slot 22. A yoke having arms 30 and 31 is provided, the arm 30 being projected through an opening in the stud 23 and angularly turned to engage the shoulder 27 on the dog 26 so as to prevent upward rotation of the dog 26 on the stud 23. The other arm 31 is also fastened to the head 24 and projected through an opening formed in the leg 20. Projecting from the yoke is a rod 32, attached to which is a flexible chain or cord 33, by means of which the operator may move the dog downwardly relatively to the bight 18. As the dog moves downwardly it is adapted to engage the teeth 34 on the ratchet wheel 35, which is fixedly mounted upon the extension 8′, so that as the dog moves downwardly to the bottom of the slot 22 the rollers 9 and 13 are rotated sufficiently to move the strip 10 one section to bring the proper indicia into registration with the openings 15 and 16. The spring 29 serves to restore the dog 26 to its open position after each operation, so that a successive operating of the device may be effected.

It is evident that as the strip unrolls from the roller 13 and rolls on the roll 9, the distance between the indicating media carried by the strip will vary.

A handle 39 is projected exterior of the housing for rewinding the rollers when necessary.

A device, constructed in this manner, is one which is believed to be quite efficient in its purpose and it is believed evident that the simplicity of the structure will be readily recognized.

While I have illustrated and described the preferred form of structure, I do not wish to limit myself to the precise form of structure shown, but desire to avail myself of of such variations and modifications as may come within the scope of the appended claims.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A street indicator of the class described, comprising a housing; rollers mounted in said housing; a flexible display member rolled on said rollers; a ratchet wheel rotatable with one of said rollers; a U-shaped bracket positioned exterior of said housing having an elongated slot formed in its bight; a stud projected through said slot; a dog mounted on said stud, said dog engaging the teeth on said ratchet wheel; means for moving said dog in one direction for effecting rotation of said roller; and means for moving said dog in the opposite direction.

2. In a street indicator of the class described: a housing; a roller bearing shaft in said housing and projecting outwardly therefrom at one side thereof; a U-shaped bracket on said housing; a ratchet wheel fixedly mounted on the exterior end of said shaft; a stud projected through a slot formed in the bight of said bracket; a dog mounted on said stud, said dog engaging the teeth of said ratchet; means for moving said dog downwardly to effect a rotation of said shaft; and resilient means for moving said dog upwardly after downward movement.

3. In a device of the class described: a housing; a roller bearing shaft mounted in said housing, and projecting exterior therefrom at one end; a U-shaped bracket mounted on said housing having its legs face inwardly thereof and provided with an elongated slot in its bight; a stud projecting through and slidable in said slot; a dog rockingly mounted on said stud; a ratchet wheel fixedly mounted on the projecting end of said shaft, the teeth thereof being engageable by said dog; means for preventing rocking movement of said dog on said shaft in one direction; resilient means for resisting rocking movement of said dog on said shaft in the opposite direction; means for moving said stud slidably in said slot in one direction; and resilient means for moving said stud in the opposite direction.

In testimony whereof I have signed the foregoing.

EMANUEL L. BUTLER.