(No Model.)

C. W. STIMSON.

ANNUNCIATOR.

No. 426,693. Patented Apr. 29, 1890.

Fig. 1.

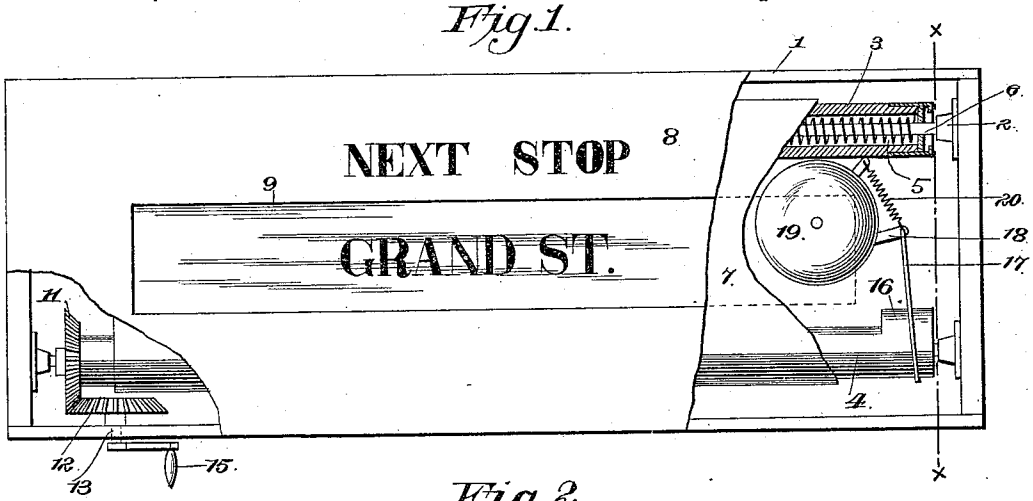
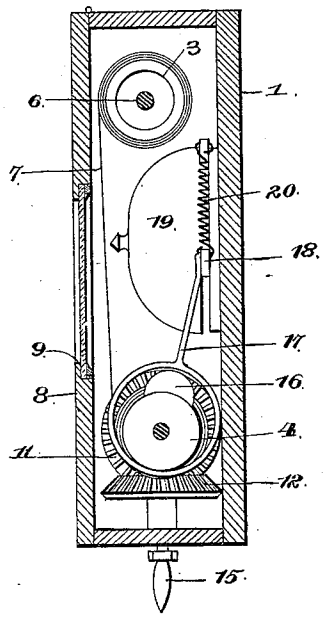


Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES WOODBURY STIMSON, OF NEW YORK, N. Y.

ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 426,693, dated April 29, 1890.

Application filed January 31, 1890. Serial No. 338,738. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WOODBURY STIMSON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Annunciator, of which the following is a specification.

This invention relates to annunciators of that class which are used principally as street or station indicators in street and railroad cars, and for advertising and other like purposes; and it has for its object to provide a device of this class which shall be exceedingly simple in construction, perfect and efficient in operation, and which may be operated easily and with a trifling expenditure of power.

My invention specifically consists in the combination, with a pair of rollers, one or both of which may be spring-actuated, of a ribbon or curtain adapted to be wound from one of said rollers onto the other, an alarm-bell, mechanism for sounding the latter when the device is operated, and mechanism whereby the device is automatically stopped at the end of each operation, the whole being constructed and arranged to operate substantially as will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a front elevation of my improved annunciator, with a portion of the cover and part of the curtain broken away. Fig. 2 is a vertical sectional view taken on the line $x\,x$ in Fig. 1.

Like numerals of reference indicate like parts in all the figures of the drawings.

In the ends of a suitable box or casing, which is designated by 1 and which is preferably rectangular in shape, are provided bearings 2 for the spindles of a pair of rollers, which are designated, respectively, by 3 and 4. The bearings employed may be of that kind which are employed for curtain-rollers of ordinary construction, and the spindles of said rollers may consist of pintles driven into the ends of the rollers or extending from caps mounted upon the ends of the latter. I wish it to be distinctly understood that with regard to the detailed construction of this and other parts of my invention I do not limit myself to the precise construction illustrated in the drawings hereto annexed, but reserve the right to any and all modifications which may be adopted without departing from the spirit of the invention.

One of the rollers 3 is a spring-roller of the character of ordinary curtain-rollers, one end of said roller being provided with a recess 5, in which the spring is mounted, one end of said spring being attached to the roller 3 and the other end to the spindle 6, upon which the roller revolves, and the outer end of which is squared and fitted detachably in its bearing. The roller 4 is an ordinary cylindrical roller made of wood or other suitable material and mounted revolubly in its bearings.

7 designates a curtain, the ends of which are suitably attached by means of tacks or in any other convenient manner to the rollers 3 and 4. The said curtain is wound upon the roller 3, when the spring actuating said roller is partially unwound, and the unwinding of the curtain from the said roller serves to wind the spring in the latter. Upon the face of the curtain, in lines that are suitably spaced, are inscribed the names of the streets or stations, (if the device is to be used as a railroad or street car annunciator,) or any other matter to which it shall be desired to direct attention. The curtain is preferably wound, as is shown in the drawings hereto annexed, over the front side of the rollers; but if it shall be deemed desirable to wind the curtain in any other way suitable guide rods or rollers may be employed for the purpose of guiding the said curtain closely behind the front side of the box 8, which is provided with a slot 9, through which the matter inscribed upon the face of the curtain may be seen. The slot 9 may be covered with a pane of glass or other suitable transparent material, and the front side 8 is preferably hinged to the box in order to afford convenient access to the interior of the latter.

One end of the roller 4 is provided with a beveled gear 11, meshing with a similar beveled gear 12, mounted upon a shaft 13, which is journaled in the bottom of the box, and it is provided at its outer end with an operating lever or crank 15. The beveled gears and counter-shaft may, however, be dispensed with when desired, and one end of the roller 4 or its axle be extended through the end of the

box in which it is journaled, and have the operating lever or crank applied directly thereto. The opposite end of the roller 4 is provided with an eccentric or cam-shaped projection 16 to engage a band 17, which surrounds the said roller and projection. The upper end of the band 17 is connected with the operating-lever 18 of a suitably-constructed alarm-bell or other alarm mechanism 19, said lever 18 being held in inactive position by the action of a spring 20, suitably connected therewith.

The parts of the device are so proportioned and the inscriptions upon the face of the curtain are so arranged that a single revolution of the roller 4 shall suffice to move one of the lines inscribed upon said curtain out of and the next succeeding line into alignment with the slot or opening in the front of the box.

The operation of the invention will be readily understood. When the roller 4 is rotated to wind the curtain thereon, the unwinding of the curtain from the roller 3 serves to wind the spring in the latter. By each revolution of the roller 4 the cam or eccentric 16 engages the band 17 and actuates the operating-lever 18 of the alarm mechanism. When the revolution of the roller has been completed, the band 17, which is drawn upwardly by the action of the spring 20, forms a stop that engages the cam 16 and serves to retain the rollers and the curtain in position. The spring in the roller 3 serves to keep the curtain taut. When the curtain has been wound upon the roller 4, the operation is reversed, and the power stored in the spring-roller 3 now serves to assist the operation, so that it will be necessary merely to start the operating-lever when it is desired to operate the device, the spring-roller serving to complete the movement and the cam or eccentric serving as before as a stop, which automatically interrupts the movement at the proper time.

I have in the foregoing described what I consider to be the simplest and most preferable construction of my invention; but the device is at the same time susceptible of numerous modifications. Thus, for instance, the path of the curtain or the method of winding it upon the rollers might be changed in different ways, or springs might be applied to both of the rollers instead of to one of them only. The construction of the rollers and the method of connecting the curtain thereto might likewise be altered, as might the construction of the box or casing and the relative position of the parts therein. I reserve the right to all such changes.

Having thus described my invention, what I claim is—

1. In an annunciator, the combination of a pair of rollers, a curtain having its ends attached to the said rollers, a spring connected with one of said rollers and adapted to be wound by the unwinding of the curtain from the said roller, and to exercise constant pressure upon the said roller against the unwinding of the curtain, a cam or eccentric mounted upon one of said rollers, a band encircling said roller and eccentric, a spring to draw the said band outward from the roller, and a crank or lever, whereby motion may be imparted to one of said rollers, substantially as set forth.

2. The combination, in an annunciator, of a pair of rollers, a curtain having its ends attached to said rollers, a spring connected with one of said rollers and adapted to be wound by the unwinding of the curtain, a cam or eccentric secured upon the roller, a band encircling said roller and eccentric, an alarm-bell, an operating-lever for the latter, having its outer end connected with the eccentric-band, and a spring to hold the said operating-lever inactive and to draw the eccentric-band outward from the roller, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHARLES WOODBURY STIMSON.

Witnesses:
MAUDE W. TOOKER,
Mrs. C. J. HALEY.