

C. FLINT.
 SPRING MOTOR.
 APPLICATION FILED FEB. 11, 1918.

1,276,201.

Patented Aug. 20, 1918.

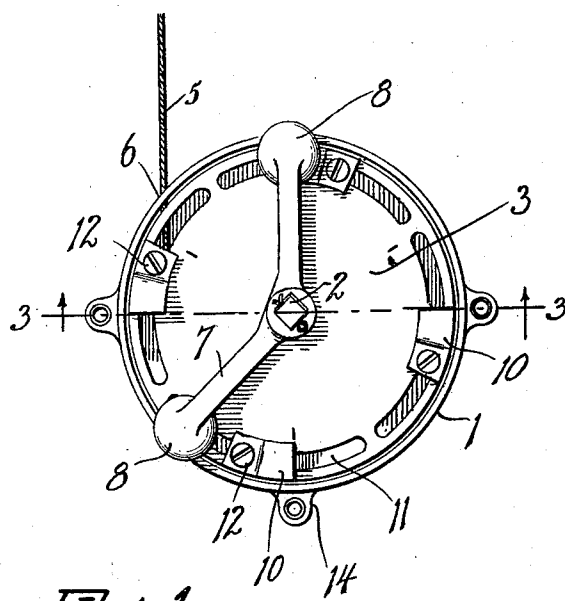


Fig 1

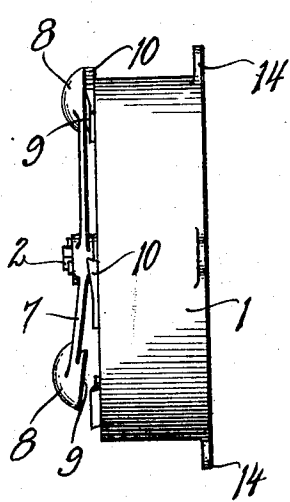


Fig 2

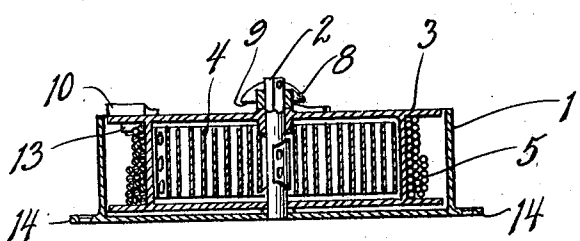


Fig 3

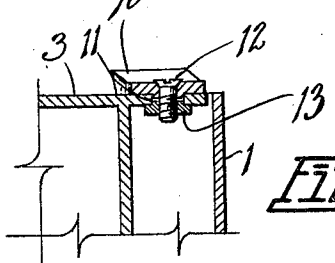


Fig 4

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CHARLES FLINT, OF SPOKANE, WASHINGTON.

SPRING-MOTOR.

1,276,201.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES FLINT, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Spring-Motors, of which the following is a specification.

This invention relates to new and useful improvements in spring motors, and is especially adapted for use in connection with street and station annunciators or indicators and the primary object is to provide a simple and efficient device of this character which may be quickly and readily operated and which in its action will provide means for setting or presenting to view the next station or crossing of the various stations along the route which are to be indicated.

A further object of the invention resides in providing a device which may be operated by hand and which may be stationed at some considerable distance from the device to be operated.

Still another object resides in providing a device which may be readily and quickly applied in any car or station now in use and which is inexpensive to manufacture and one which will be very efficient in use.

With these and other objects in view my invention consists in the novel features in construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specifications and claims.

In the accompanying drawing forming a part of this application,

Figure 1 is a plan view of the spring motor used in connection with the aforementioned device.

Fig. 2 is a side elevation thereof.

Fig. 3 is a section therethrough as seen on the line 3—3 of Fig. 1.

Fig. 4 is a fragmentary detail illustrating the manner of securing the adjustable stop lugs.

In describing the invention I shall refer to the drawings in which similar reference characters designate corresponding parts throughout the several views and in which 1 illustrates the casing of the spring motor of somewhat cylindrical design wherein is mounted a central shaft 2 and rotatably mounted on this shaft is a reel 3. Within the reel is a coil spring 4 and adapted to be wrapped upon the reel is a flexible connection 5 which is projected through a slot or

opening 6 in the casing. This flexible connection extends for any distance according to the position of the indicator proper with respect to the motor and connects with the spool or reel upon said indicator upon which the same is adapted to be wound or unwound as the case may be. When the reel or spool of the indicator is wound up which winding is accomplished by means of a handle upon the indicator so that the cord or flexible connection 5 is wound thereon, this cord or connection is removed from the reel 3 of the motor causing the spring thereof to be wound to its greatest tension. I have provided a means for releasing the tension of the spring and thus operating the indicator at the will of the operator. To this end an obtuse angular arm 7 is provided, the same being pivoted loosely on the upper end of the pin or shaft 2. The outer ends of this arm are provided with head members 8, the under faces of which are provided with locking lugs or the like 9. Adjustable beveled locking lugs 10 are formed on the outer face of the reel 3 as clearly shown in Figs. 1, 2, 3 and 4 of the drawings. The arm 7 being loosely mounted on the stem 2 enables the same to be oscillated thereon and same may be disposed so that one head member or button 8 is moved inwardly or downwardly so that the lug 9 thereon may engage one lug 10. As the reel is under tension of the spring 4 one of the lugs 9 on the arm 7 will hold it in locked position against movement by engaging with one of the lugs 10 on the reel, and as the engaging faces of the several lugs are slightly overhanging the button or head 8 will remain in depressed position until released. When it is desired to permit the spring to be somewhat released whereby to operate the indicators, the opposite button or head 8 may be pushed inwardly or downwardly which releases the engagement between the last mentioned lugs 9 and 10. The reel will then rotate until the lug 10 comes in contact with the lug 9 on the last mentioned button or head 8. There will be a fractional rotation of the reel 3 and this will be sufficient to indicate a new station on the indicator proper, it being understood that upon the rotation of the reel 3 the flexible connection or cord 5 is operated to operate a reel or spool or other device upon the indicator. In some instances it is necessary to space the lugs 10 at uneven distances about the axis of the reel and to provide adjusta-

bility as desired. Slots 11 are cut into the reel approximating nearly a quarter of the diameter of said reel and through this slot a screw 12 is passed and adjusted with the nut 5 13 to securely lock the lug 10 in the desired position. By loosening the nut it is possible to set the lugs in any predetermined position for the most effective working of the indicator or like device. By reason of the out- 10 standing ears 14 it is possible to secure the spring motor in any desired position for operation. From the foregoing description of the construction of my improved device the operation thereof will be readily understood 15 and it will be seen that I have provided a simple, inexpensive and efficient means for carrying out the object of the invention.

While I have particularly described the elements best adapted to perform the function set forth it is obvious that various 20 changes in the form, proportion and in the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the principles of the invention. 25

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

1. In a device of the class described, the 30 combination of a flexible connection with a spring motor consisting of a casing having a slot therein, a central shaft in said casing, a reel rotatably mounted on said shaft and having the flexible connection engaged 35 therewith, said connection being directed

through the slot in the casing, a coil spring member engaged with the shaft and also with the reel to operate the latter, an obtuse angular arm fulcrumed on the outer end of said shaft and having beveled locking lugs 40 at the ends thereof, and additional locking lugs on the outer face of the reel adapted for engagement with the aforesaid locking lugs whereby to lock the reel against rotation except at such times as may be desired 45 to release same according to the will of the operator.

2. In a device of the class described, the combination with a flexible connection, of a spring motor consisting of a casing having 50 a slot therein, a central shaft in said casing, a reel rotatably mounted on said shaft and having the flexible connection engaged therewith, said connection being directed 55 through the slot in the casing, a coil spring member engaged with the shaft and also with the reel to operate the latter, an obtuse angular arm fulcrumed on the outer end of said shaft and having beveled locking lugs 60 at the ends thereof, and additional locking lugs on the outer face of the reel adjustably secured to said reel and adapted for engagement with the aforesaid locking lugs 65 whereby to lock the reel against rotation except at such times as may be desired to release same according to the will of the operator.

In testimony whereof I affix my signature.

CHARLES FLINT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."