April 13, 1926. 1,580,286

L. L. CLOUD

STATION INDICATOR

Filed June 10, 1924

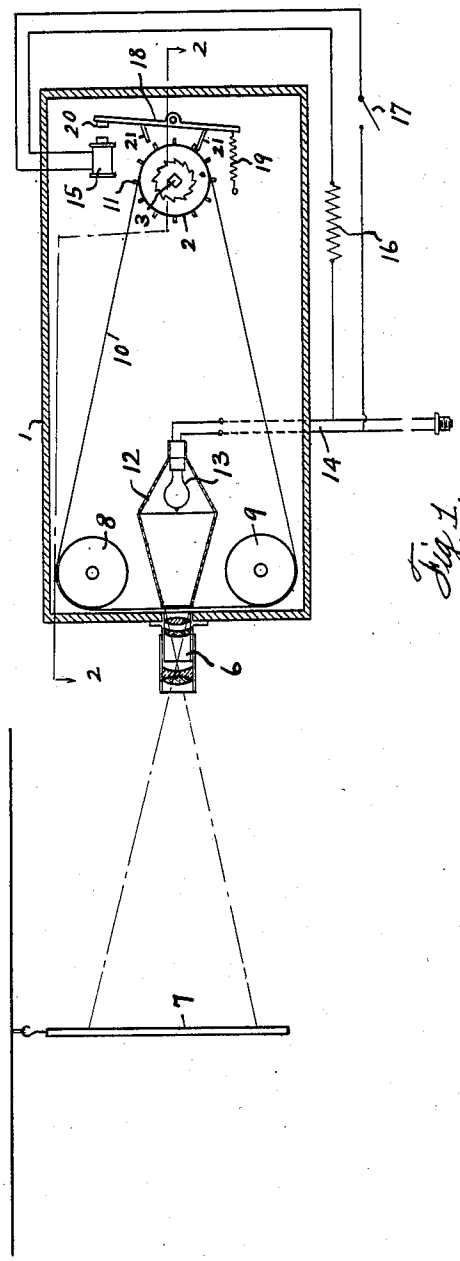


Fig. 1.

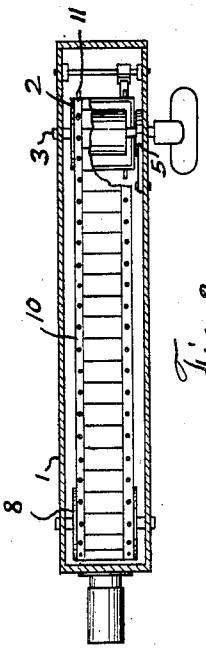


Fig. 2.

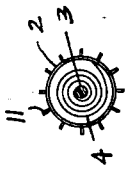


Fig. 3.

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UNITED STATES PATENT OFFICE.

LOUISE L. CLOUD, OF HOUSTON, TEXAS.

STATION INDICATOR.

Application filed June 10, 1924. Serial No. 719,100.

To all whom it may concern:

Be it known that I, LOUISE L. CLOUD, a citizen of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in a Station Indicator, of which the following is a specification.

This invention relates to new and useful improvements in a station indicator.

One object of the invention is to provide a device of the character described specially adapted to be installed in railway passenger cars, for the purpose of indicating the stations along the railway line.

Another object of the invention is to provide an apparatus of the character described which may be electrically operated for the purpose of displaying the stations on a suitable screen in easy view of the passengers, and which may be controlled through the operation of an electric switch.

With the above and other objects in view, this invention has particular relation to certain novel features of construction, operation and arrangement of parts, an example of which is given in this specification and illustrated in the accompanying drawings, wherein:—

Figure 1 shows a vertical, sectional view of the device.

Figure 2 shows a transverse sectional view, taken on the line 2—2 of Figure 1; and

Figure 3 shows a cross sectional view of the spring motor employed.

Referring now more particularly to the drawings, wherein like numerals of reference designate similar parts in each of the figures, the numeral 1 designates the housing of the apparatus which is located at any desired place in the car. The spring motor consists of a drum 2, which is mounted on a transverse shaft 3. Within the drum there is a coil spring 4, one end of which is attached to the drum 2 and the other end of which is attached to the shaft 3. The spring motor may be wound up by turning the shaft 3, and this shaft is held against backward rotation by means of a rack and dog arrangement 5. The drum is held against sudden unwinding by an escapement mechanism to be hereinafter described. At its opposite end the housing 1 is equipped with the stereopticon lenses 6, arranged to project the names of stations onto a screen 7. Within the housing 1, above and below the stereopticon lenses are the drums 8 and 9. A film 10 moves over the drums 2, 8, and 9. This film has the names of the stations on it, and has marginal perforations as shown in Figure 2, to receive pins or studs 11, carried by the ends of the drum 2. These pins drive the film and maintain the alignment of the stations with the stereopticon lens, before which the film passes.

The numeral 12 designates a light reflector in which there is an electric light 13. This reflector is tapered and extended forwardly in alignment with the magnifying lenses 6. The light 13 is connected to the electric light circuit 14, which is provided with a plug to screw into the electric lighting system of the train. There is an electromagnet 15 wired into the light circuit, and provided with a suitable resistance 16, and a push button switch 17. There is an escapement consisting of the pivoted bar 18, one end of which is connected to a pull spring 19, and at the other end of which carries a magnet 20.

This bar 18 has the catches 21, 21, arranged to alternately engage with the pins 11, of the drum 2. When the switch 17 is closed the magnet 15 will operate to pull the bar 18 in one direction and when said switch is open the spring 19 will pull said bar in the opposite direction. By closing and opening said push button 17, the escapement mechanism described will be operated and the drum 2, acting under the influence of the spring 4, will gradually unwind, and the film 10 will be correspondingly moved to carry the stations successively before the projecting lens, whereby they are projected onto the screen, in view of the passengers.

What I claim is:

1. A station indicator including a housing; a spring motor in the housing and consisting of a drum, a shaft on which the drum is mounted, and a coil spring attached at one end to the drum, and at its other end to the shaft; a rack and dog arrangement confining said shaft to a one way rotation; a stereopticon lens arranged at one end of the housing; a screen in front of said lens; a pair of film supporting drums; a film movable over all of said drums and behind said lens, said film having marginal perforations; studs carried by the motor drum and working through said perforations to drive the film; a light reflector arranged behind said lens and film, said reflector being tapered and extended forwardly and in alignment

with the lens; an electric light in said reflector; an electric circuit into which the light is connected; an escapement mechanism arranged to control the operation of said motor; an electric magnet arranged to control the operation of said escapement mechanism; an electric circuit into which said magnet is connected, and a circuit making and breaking switch in said last named circuit.

2. A station indicator including a housing, a spring motor in the housing consisting of a drum, a shaft on which the drum is mounted and a coil spring attached to the drum and adapted to rotate the same; a rack and dog arrangement confining said shaft to a one-way rotation; a stereopticon lens arranged at one end of the housing, a pair of film supporting drums, a film movable over all of said drums and behind said lens, operative connections between the film and motor drum through which the film is driven as the motor drum rotates, a light reflector arrangement behind said lens and film and in alignment with the lens; an electric light in front of said reflector, an electric circuit into which the light is connected; an escapement mechanism arranged to control the operation of the motor; an electric magnet arranged to control the operation of the escapement mechanism; an electric circuit into which said magnet is connected, and a circuit making and breaking switch in said last named circuit.

In testimony whereof I have signed my name to this specification.

LOUISE L. CLOUD.