March 12, 1957 D. BALLESTEROS 2,784,692

AUTOMATIC SIGNAL FOR PARKING LOTS

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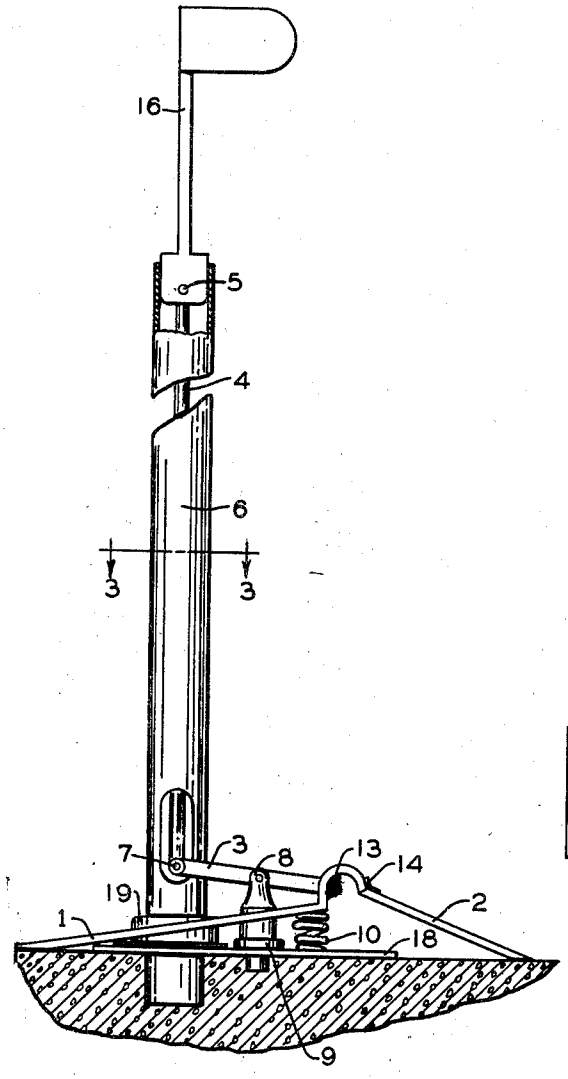


FIG. 1

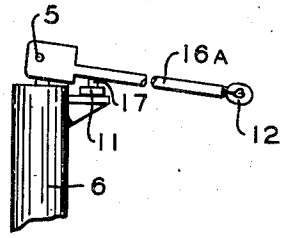


FIG. 2

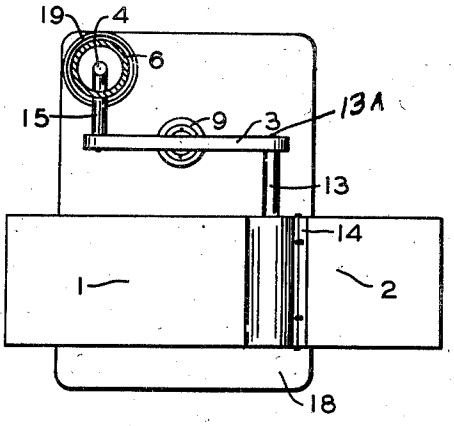


FIG. 3

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AUTOMATIC SIGNAL FOR PARKING LOTS

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6 Claims. (Cl. 116—28)

My invention relates to an automatic signal for parking lots to help a customer locate a vacant parking space. This signal operates when a car parks or leaves a parking space.

Fig. 1. Elevation view. The cutout in the middle of the pipe shows the rod 4. The cutout at the upper part of the pipe shows the connection 5 of the rod with the balance. The opening at the lower part of the pipe is to permit the end of the rod to come out of the pipe, so it can be connected to the lever.

Fig. 2. Shows the balance when it drops, and a switch, when an electrical signal is desired, that operates with the weight of the balance, disconnecting it, when it drops and connecting it when it goes back to the normal position.

Fig. 3. Shows the plates 1 and 2, the prolongation 13 of the lever and the lever 3 itself.

When the car parks, one of the front wheels rolls upon the vehicle engaging means in the form of platform 1. The platform actuates coupling means in the form of lever 3 pivotally connected by part 13 with platform 1 and pivotally connected at 7 with operating element 4. As shown in the drawing the part 13 is welded to the underside of the curved portion of platform 1 and is provided at its other end with an axially projecting pin 13A which extends through an opening in lever 3. Preferably the opening in lever 3 is in the form of a slot extending longitudinally of lever 3 to accommodate lateral relative movement between platform 1 and lever 3 as the parts operate. The lever 3 pushes up a vertical operating rod 4—vertical to the floor—which has a movable connection 5 with a lance or indicating element 16. The lance holds a flag or signal. The pivot 5 permits the lance to drop due to gravity, since the indicating element is unbalanced, whenever the operating element 4 is moved upwardly.

A vertical control pipe 6 mounted on the baseplate 18 by means of a flanged collar 19 holds the operating rod inside and permits the same to move freely. The rod 4 in the lower extreme has a movable pivot connection 7 with the lever 3.

The lever is balanced with its supporting point 8 approximately in the middle of its length. A vase 9 settled in the baseplate 18 holds that point at a couple of inches from the ground. That point is movable.

At the other end of the coupling 3 is a prolongation 13 disposed at an angle of 90 degrees and horizontal to the floor. Over that prolongation the plate 1 is supported at one of its ends normally about 3 inches from the floor, due to the action of a spring 10. A plate 2 is hingedly connected at its left-hand edge with the right-hand edge of platform 1 by a hinge 14 so as to accommodate flexure of the parts 1 and 2 along their adjacent edges.

When the car leaves the parking space, the plate is returned to its normal position, because of the spring, and moves the prolongation 13 upwardly and the pivot 7 downwardly. For that reason the rod goes down and brings a few inches of the indicating element inside the pipe 6.

The sides of control element 6 hold the indicating element coaxial with operating rod 4. When the rod 4 is pushed upwardly the connection 5 moves outside of the control element 6 and the indicating element is free to swing about its pivot 5.

The signal may have different forms: flags, triangles, squares etc.

The signal can also have an electric light 12 that normally is on, and when the car parks, the balance, as it drops, would disconnect a switch 11 so the light goes off. Light 12 is mounted on indicating element 16A and switch 11 is controlled by switch plunger 17 which is engaged by element 16A.

The platform 1 is bent upwardly at the extreme of the prolongation so the car stops at that point.

What I claim as new is:

1. Indicating means for use in parking vehicles comprising an operating element, an indicating element movably mounted on said operating element and having a normal position relative thereto, said indicating element being biased for movement from its normal to an operated position, a control element normally disposed in coaxial relation with said operating and indicating elements and normally effective to hold said indicating element in its normal position, and means engageable by a part of a vehicle for imparting relative axial movement to said control element and to said operating and indicating elements to cause said indicating element to move from its normal position to an operated position.

2. Indicating means for use in parking vehicles comprising an operating element, an unbalanced indicating element movably mounted on said operating element and having a normal position relative thereto, a control element normally disposed in coaxial relation to said operating and indicating elements and effective normally to hold said indicating element in its normal position, a vehicle engaging element having a normal position and movable to an operated position upon engagement by a part of a vehicle, and coupling means interconnecting said vehicle engaging element and said operating element, movement of said operating element being effective to render said indicating element movable due to its unbalanced condition.

3. Indicating means for use in parking vehicles comprising an operating element, an indicating element movably mounted on said operating element and having a normal substantially coaxial position relative thereto and being biased for movement out of its normal position, a fixed control element normally disposed in coaxial relation to said operating and indicating elements and normally effective to hold said indicating element in its normal position, a platform biased toward a normal position and movable to an operated position upon engagement by a wheel of a vehicle, and coupling means pivotally connected with said platform and with said operating element for imparting operating movement to said operating and indicating elements thereby to render said control element ineffective to hold said indicating element in its normal position.

4. Indicating means for use in parking vehicles comprising a vertically disposed hollow control element, an operating element disposed within said control element and movable vertically therein, an indicating element movably mounted on said operating element and normally having a substantially coaxial relationship therewith, and means engageable by a part of a vehicle for imparting relative axial movement to said control element and to said operating and indicating elements to cause said indicating element to move from its normal position to an operated position.

5. Indicating means for use in parking vehicles com-

prising a vertical hollow tubular control element, a vertically disposed operating rod in said control element, an indicating element pivotally mounted on said operating rod near the upper end thereof, said control element normally being effective to hold said indicating element in a normal position relative to said operating rod, and means for moving said operating rod and said indicating element in a vertical direction relative to said control element thereby to render said control element ineffective to hold said indicating element in its normal position relative to said operating rod.

6. Indicating means for use in parking vehicles comprising a vertically disposed hollow control element, an operating element disposed within said control element and movable vertically therein, an unbalanced indicating element pivotally mounted on said operating element near the upper end thereof, said control element normally being effective to hold said indicating element and said operating element in a substantially vertical coaxial relation, and means engageable by a part of a vehicle for moving said operating element and said indicating element in an upward direction relative to said control element thereby to render said control element ineffective to hold said indicating element in coaxial relation with said operating element.

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