E. F. KIESSLING.

DIRECTION INDICATOR.

APPLICATION FILED AUG. 9, 1920.

1,392,506.

Patented Oct. 4, 1921.

Fig. 1.

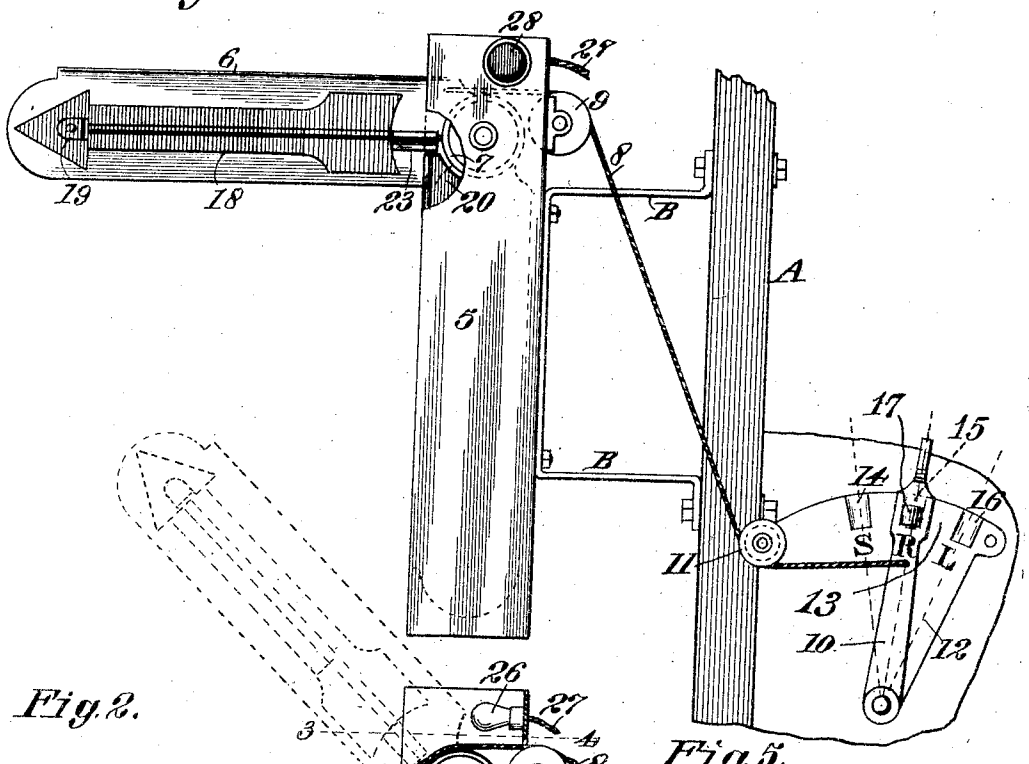


Fig. 2.

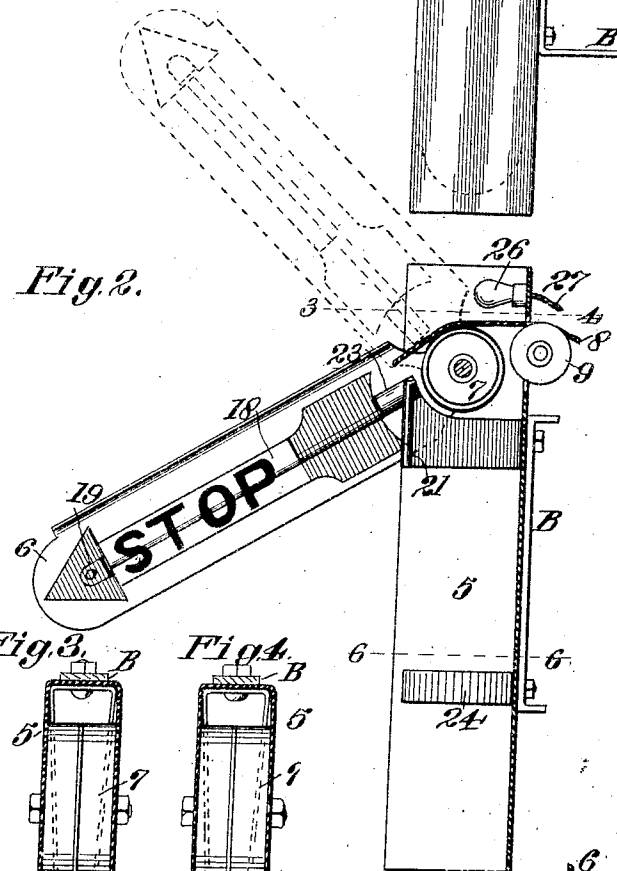


Fig. 5.

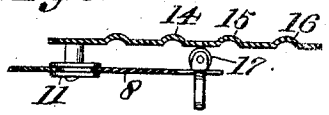


Fig. 6.

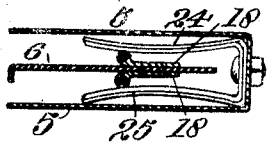


Fig. 3.

Fig. 4.

Fig. 7.



Fig. 8.

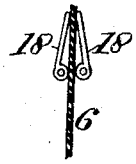
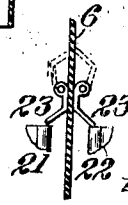


Fig. 9.



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DIRECTION-INDICATOR.

1,392,506. Specification of Letters Patent. Patented Oct. 4, 1921.

Application filed August 9, 1920. Serial No. 402,160.

To all whom it may concern:

Be it known that I, EDMUND F. KIESSLING, a citizen of the United States, and a resident of Oakland, county of Alameda, State of California, have invented a new and useful Direction-Indicator, of which the following is a specification.

The present invention relates to direction indicators for motor and the like vehicles and has reference more particularly to an improved semaphore structure which may be mounted upon the vehicle and manipulated by an occupant, preferably the driver thereof, for conveniently and effectively indicating an execution of a right or left hand turn and a stop.

At the present time there are various types of direction indicators in use but most of these indicators are either so complicated as to make their use prohibitive or else fall short of meeting the requirements for a practical solution of the problems involved. Then again, there are more or less fixed rules and regulations which must be complied with in most cities concerning these indicators and many of them fail to operate in accordance with such regulations.

It is the primary object of this invention to offer not only a most efficient and practical indicator but at the same time one which will comply with the universal signal regulations.

In the accompanying drawing a preferred embodiment of the invention is illustrated and will be as a basis of illustration in the following description.

In said drawing Figure 1 is a side elevation illustrating the application of the invention. Fig. 2 is a vertical section through the indicator housing with the semaphore in one of its three active positions. Fig. 3 is a cross-section on the line 3—4 Fig. 2. Fig. 4 is a cross-section also on the line 3—4 Fig. 2 but looking from the opposite side. Fig. 5 is a cross-section of the controlling device shown as a part of Fig. 1. Fig. 6 is a cross-section on the line 6—6 Fig. 2 and Figs. 7, 8 and 9 are detail of a cross-section of the semaphore arm.

Referring to the drawing in detail; it is proposed to mount the indicator upon the vehicle in a convenient place, such as on the side of the wind shield frame "A" by the means of the bracket "B." A suitable housing is represented as comprising a channeled frame 5 having a back portion to which the bracket "B" is attached. The front of the housing, of course, is open to leave an unobstructed clearance for the semaphore arm 6, which is hingedly mounted in the top of the housing by the rotary block 7 which is confined between the side plates of the housing with freedom of rotation in the bearings thus provided.

Attached to the arm 6 so that the same may be raised or manipulated to its various active positions is a pull cord or small cable 8, the same passing over a roller 9 to a location adjacent the driver's seat where its end is attached to a control handle 10 after being passed around a second roller 11, the control handle 10 being pivoted to plate or the like 12, having a notched segment 13 with the notches therein, namely 14, 15, and 16, representing a stop, right turn and left turn respectively. The handle is provided with a roller 17 which renders the same easily moved over the segment and adapted to occupy any one of the three notches to maintain the cable 8 taut with the semaphore arm held in the elected position to indicate the move to be executed by the driver.

One of the salient features of the invention resides in the novel and highly desirable construction of the semaphore arm which construction enters into the arrangement as a most important factor in the efficient operation of the device. To indicate from one side of the vehicle that the same will execute a turn opposite to that on which the device is carried, it is necessary the semaphore arm be capable of assuming a position clearly indicating such a turn and not confusing it with other positions which includes the stop position; therefore it is preferred and also required by conventional regulations that the right hand turn or the left if the device is mounted on the right of the vehicle be designated by a vertical or at least a substantially vertical position of the arm; whereas the opposite turn, for instance to the left, be represented by a horizontal position of the arm and with the stop indicated by a downward slant of the arm. To prevent confusion between a stop and either one of the turns and at the same time to positively distinguish as a separate and independent indication I have elected to so construct the semaphore arm that the word "Stop" will appear and be easily read from either the front or the rear of the vehicle.

To accomplish this feature I contemplate as a preferred construction to employ a drop slide 18, on both sides of the semaphore arm, which will consist primarily of a rod extending longitudinally of the arm, having bearings as at 19 and 20 arranged to permit the slide to move freely so that when turned upwardly it will expose the word "Stop," see Fig. 2; the word "Stop" being printed, painted or otherwise displayed on the under side of the flap, and that portion of the semaphore arm covered thereby. To actuate the slide to expose the word "Stop" the inner end of the rod, or rods, as one is provided on each side of the arm, is constructed with outwardly turned ears 23 which are adapted to coöperate with the face plates 21 and 22, between which the semaphore arm moves in being swung to any one of its active positions and when returning to an inactive position within the housing.

It is preferred to do away with springs or the like and in this construction it is to be noticed that the semaphore arm will return to an inactive position within the housing by its own weight. The movement of the slide 18 is also effected in the like manner, that is to say the weight of the same will normally maintain the slide folded, so as to lie against the arm, at least, so long as the arm is either in the position shown in dotted lines in Fig. 2 or when in a horizontal position as shown in Fig. 1. Just as soon as the arm is lowered to an extent whereby the ears 23 contact with the plates 21 and 22 the wiping action at this point will operate and turn the slide up to expose the stop signal.

An arrow or the like character is provided on each side of the arm and the outside of the slide is painted to effect an uninterrupted representation of the same so that when the stop signal is not exposed the out-line of the arrow will appear distinct. However, when the slide is turned up to expose the stop signal that part of the arrow between the tail and head will be obliterated, as shown in Fig. 2

To firmly confine the semaphore arm within the housing and prevent the same from rattling from the vibration of the vehicle a pair of opposed plates 24 and 25 are arranged within the housing and between which the arm will recede. As means of clearly distinguishing the indicating positions of the semaphore arm at night a light source may be provided within the housing as at 26, with the lead wire 27 establishing a circuit to the same from the battery or other generating source of the vehicle. In this connection the lens 28 is employed to show a red light from the rear of the vehicle.

I claim:

1. In a direction indicator, an indicating arm adapted to assume various active indicating positions, and means for displaying a descriptive indicating character on the arm corresponding to one of the direction indicating positions of the arm and adapted to positively distinguish said position from the other positions that the arm is capable of assuming.

2. In a direction indicator, an indicating arm, a housing adapted to confine said arm when in an inactive position, means for moving said arm selectively to one or more active direction indicating positions, and means on the arm adapted to coöperate with means on the housing for displaying a descriptive character on the arm to distinguish one of said positions from the other positions which the arm is capable of assuming.

3. In a direction indicator, an indicating arm, a housing adapted to confine said arm when in an inactive position, means for moving said arm selectively to one or more active direction indicating positions, and means on the arm adapted to coöperate with means on the housing for displaying a descriptive character on the arm to distinguish one of said positions from the other positions which the arm is capable of assuming, comprising a slide on the arm adapted to be automatically actuated to uncover a portion of the face area of the arm to show a character displayed in said area.

4. In a direction indicator, an indicating arm, a housing adapted to confine said arm when in an inactive position, means for moving said arm selectively to one or more active direction indicating positions, and means on the arm adapted to coöperate with means on the housing for displaying a descriptive character on the arm to distinguish one of said positions from the other positions which the arm is capable of assuming, comprising a slide on the arm adapted to be automatically actuated to uncover a portion of the face area of the arm to show a character displayed in said area, an actuating device for said slide including means carried by the arm and adapted to have a wiping contact with means on the housing for turning the slide about a hinged mounting which connects the same to the arm.

5. In combination with the semaphore arm of a direction indicator which is adapted to assume various active direction indicating positions, means on said arm for describing one of said positions comprising a descriptive character, a slide adapted to obscure the character when the arm is in any other active position other than that corresponding to the character, and means adapted to automatically move said slide to expose said character when the arm assumes a direction indicating position corresponding to that of the character.

EDMUND F. KIESSLING.