Aug. 11, 1936. R. E. SUMMERS 2,050,635

TRAFFIC SIGNAL

Filed Sept. 7, 1935

Fig. 1.

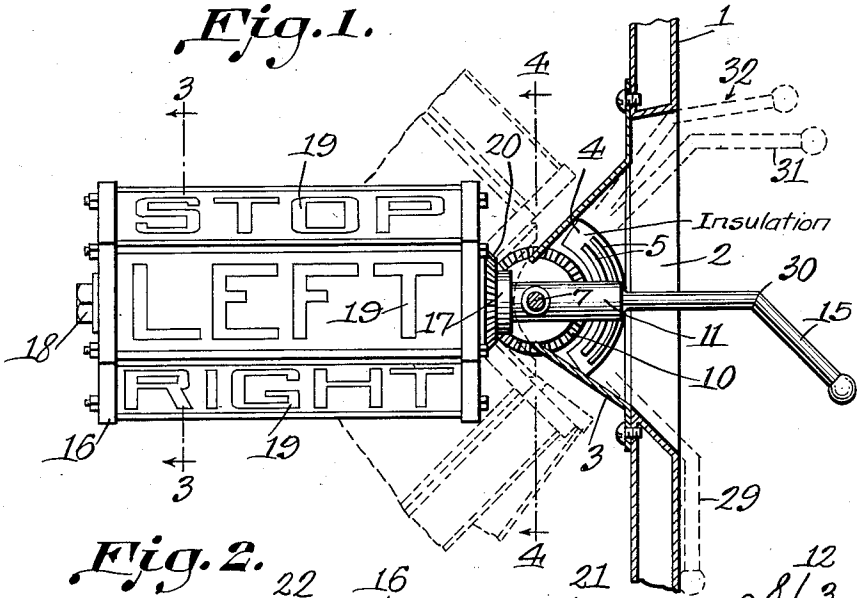


Fig. 2.

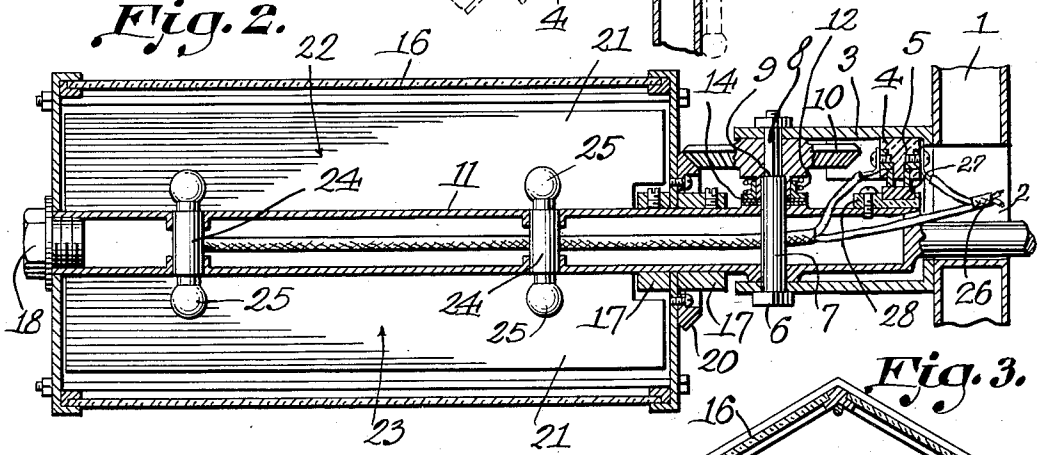


Fig. 3.

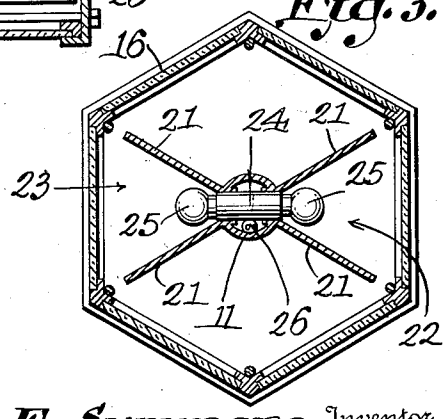
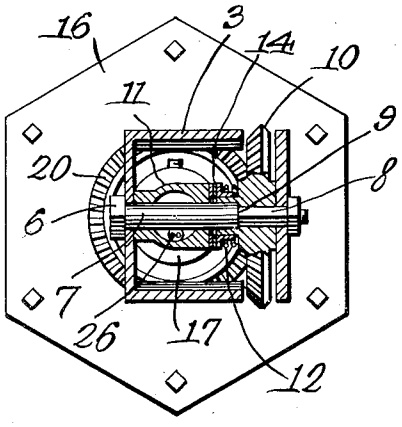


Fig. 4.



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TRAFFIC SIGNAL

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2 Claims. (Cl. 116—46)

This invention aims to provide a simple signal, adapted to be mounted on the side of an automobile, and capable of being operated from within the automobile, to indicate, toward the front and toward the rear of the vehicle, the intentions of the driver, with respect to stopping, turning to the left, or turning to the right, although the device, of course, may be used to impart signals of a different sort.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing:—

Fig. 1 shows in rear elevation, a device constructed in accordance with the invention;

Fig. 2 is a longitudinal section;

Fig. 3 is a section on the line 3—3 of Fig. 1;

Fig. 4 is a section on the line 4—4 of Fig. 1.

The numeral 1 indicates a support, such as the side wall of an automobile. The support 1 has a vertical slot 2. A bracket 3 is secured to the outside of the support 1, about the slot 2 and comprises side arms, as shown in Fig. 2. An insulating block 4 is attached to one side of the bracket 3. The insulating block 4 carries curved conducting tracks 5.

A fulcrum bolt 6 is mounted in the side walls of the bracket 3. The fulcrum bolt 6 has a round part 7 and a square part 8. The square part 8 of the bolt 6 is engaged in one side wall of the bracket 3, so that the bolt cannot turn. The parts 7 and 8 of the fulcrum bolt 6 form a shoulder 9. A fixed bevelled gear 10 is mounted on the square part 8 of the fulcrum bolt 6, between the shoulder 9 and one side wall of the bracket 3.

A hollow shaft 11 extends into the bracket 3. The hollow shaft 11 is mounted, intermediate its ends, to swing vertically on the fulcrum bolt 6. A compression spring 12 is mounted on the round part 7 of the fulcrum bolt 6 and presses against the bevelled gear 10. The inner end of the compression spring 12 presses against friction washers 14 on the round part 7 of the fulcrum bolt 6. The innermost friction washer may be secured to the side of the hollow shaft 11. The purpose of the spring 12 and the washers 14 will be explained hereinafter. The operating means for swinging the hollow shaft 11 vertically on the fulcrum bolt 6 may be a handle 15 secured to the inner end of the shaft 11, and projecting into the automobile, through the slot 2 in the support 1.

A signal casing 16 is mounted to turn on the shaft 11 and is located outside of the automobile. The signal casing 16 may be six-sided if desired. The inner end wall of the signal casing 16 is disposed between two set collars 17 on the shaft 11. The outer end wall of the signal casing 16 is engaged by the head of a screw plug 18 in the outer end of the hollow shaft 11. The screw plug 18 and the set collars 17 prevent the signal casing 16 from moving lengthwise on the shaft 11 but do not prevent the signal casing from turning on the shaft. The three rear plates of the signal casing 16 are marked, as shown at 19, with the words "Stop", "Left", and "Right"; other marking may be used. The three front plates of the signal casing 16 are marked in such a way that when any one of the words mentioned is disposed in a vertical position at the rear of the signal casing, and immediately to the rear of the rear light compartment 23, the corresponding word or symbol on the signal casing will be disposed in a vertical position, in front of the front light compartment 22. A bevelled pinion 20 is secured to the inner end of the signal casing 16. The bevelled pinion 20 meshes with the fixed bevelled gear 10.

The shaft 11 carries radial partitions 21, located within the signal casing 16. The partitions 21 form the front light compartment 22, and the rear light compartment 23, hereinbefore alluded to. The shaft 11 carries sockets 24. Electric lamps 25 are mounted in the sockets 24. The electric lamps 25 are disposed in the light compartments 22 and 23. The two-wire circuit for the lamps 25 is marked by the numeral 26 and extends through the hollow shaft 11. In one wire of the lamp circuit 26, the conducting tracks 5 are interposed. The circuit 26 is open, saving when the tracks 5 are bridged, as shown in Fig. 2, by a conducting member 27 fixed in a piece of insulation 28 mounted on the side of the shaft 11, within the bracket 3.

The hollow shaft 11 can be swung vertically on the fulcrum bolt 6, by means of the handle 15. When the shaft 11 is swung vertically, the signal 16 is swung vertically also. The bevelled pinion 20 on the signal 16, cooperating with the fixed bevelled gear 10, rotates the signal 16, when the

signal is swung vertically. The purpose of the spring 12 and the friction washers 14 is to afford a brake which will retain the shaft 11 in any position to which it has been swung vertically by an operator.

When the handle 15 is swung down to the position shown at 29, the word "Right" on the signal 16 is disposed vertically at the front and at the back of the signal. When the handle 15 is in the position shown at 30, the words "Left" are correspondingly displayed at the front and at the back of the signal. The "Stop" position is shown at 31. When the handle 15 is in the uppermost position shown at 32, the lamps 25 are out. This is so, because, by that time, the bridge 27 on the inner end of the shaft 11 is off the conducting tracks 5 and in engagement with the upper end of the insulating block 4 in Fig. 1, the lamp circuit then being open. When, however, the handle 15 is in any of the positions shown at 31, 30 or 29, the bridge 27 engages with the tracks 5 as shown in Fig. 2, to close the lamp circuit, the lamps 25 being lighted, and the markings shown at 19 being illuminated.

The device may embody two, three or more of the signal markings indicated at 19. Although the handle 15 is shown as a means for rotating the shaft 11, the shaft may be rotated otherwise than by hand, and through any approved instrumentality.

What is claimed is:

1. In a device of the class described, a bracket comprising oppositely-disposed side arms, a fulcrum member extended across the bracket and having its ends mounted in the arms, means for holding the fulcrum member against rotation in the arms, a shaft extended between the arms and mounted intermediate its ends on the fulcrum member for swinging movement in a fixed plane, a signal journaled on the shaft, intermeshing beveled gears secured, respectively, to the signal and to the fulcrum member, and a resilient brake mounted on the fulcrum member, the brake abutting at one end against the shaft and at its opposite end against the gear that is secured to the fulcrum member, the brake constituting means for holding the shaft in any position to which it may have been swung in said plane.

2. In a device of the class described, a bracket comprising oppositely-disposed side arms, a fulcrum member extended across the bracket and having its ends mounted in the arms, one end portion of the bracket being polygonal and being held against rotation in one of the arms, a shaft extended between the arms and mounted intermediate its ends on the fulcrum member for swinging movement in a fixed plane, the shaft abutting against the other of said arms, a signal journaled on the shaft, intermeshing beveled gears, one of which is secured to the signal, and the other of which is mounted on the polygonal portion of the fulcrum member and is held thereby against rotation, the last-specified beveled gear abutting against the first-specified arm, and a resilient brake mounted on the fulcrum member, the brake abutting at one end against the shaft and at its opposite end against the gear that is mounted on the polygonal portion of the fulcrum member, the brake constituting means for holding the shaft in any position to which it may have been swung in said plane.

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