Dec. 29, 1925. 1,567,539

Y. MORIMOTO

AUTOMOBILE TRAFFIC SIGNAL

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Fig. 1.

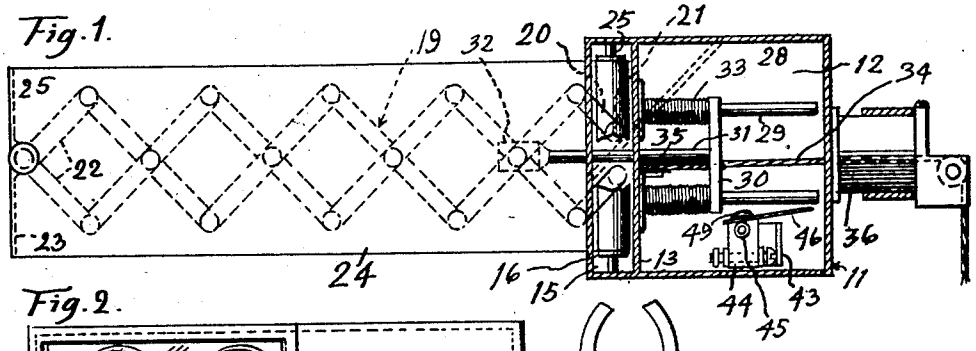



Fig. 2.

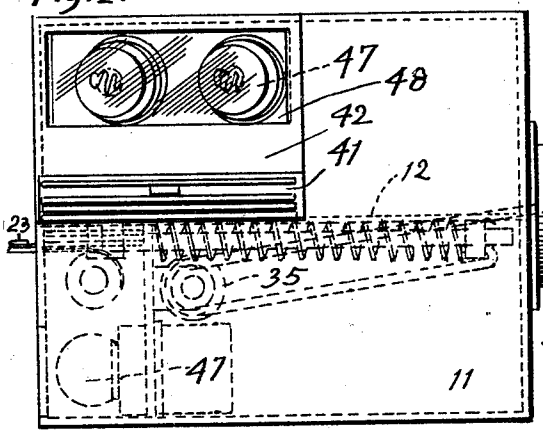



Fig. 3.

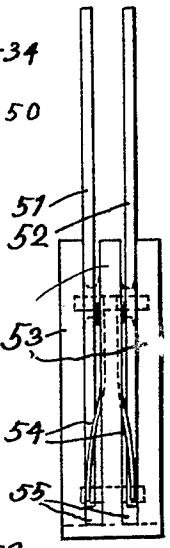



Fig. 5.

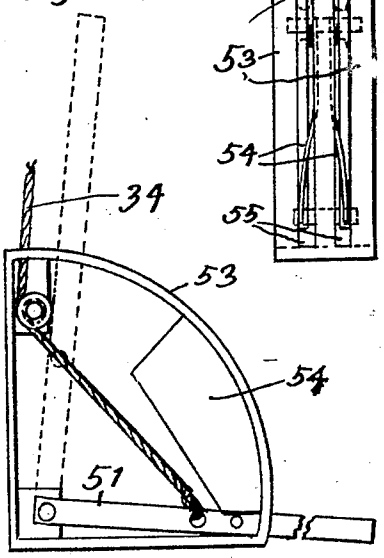
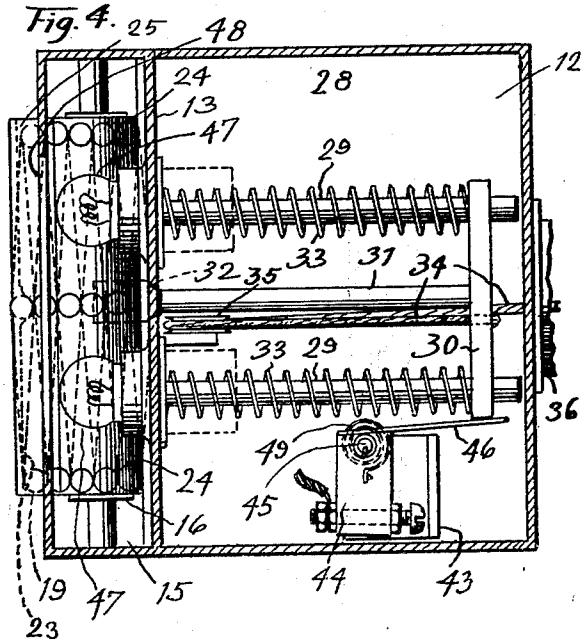



Fig. 4.




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Fig. 6.

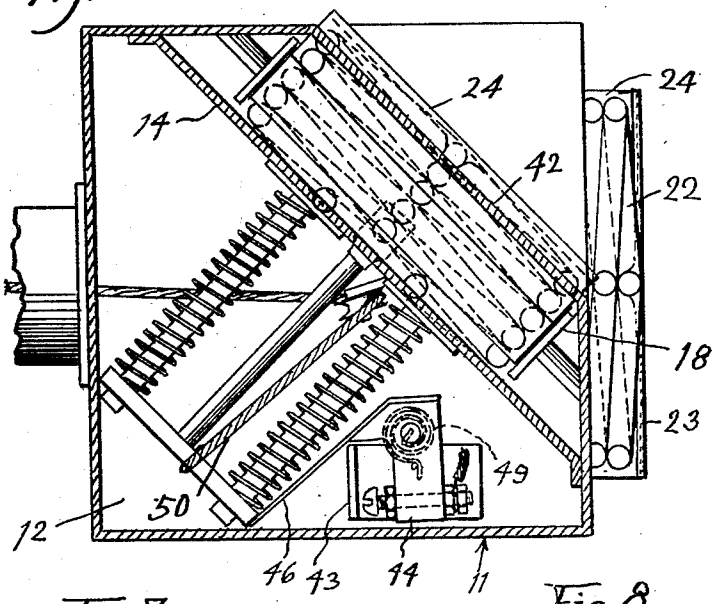



Fig. 7.

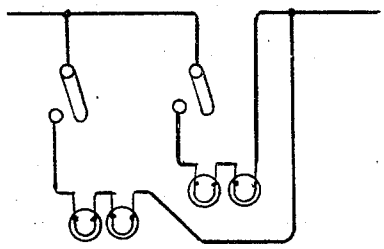
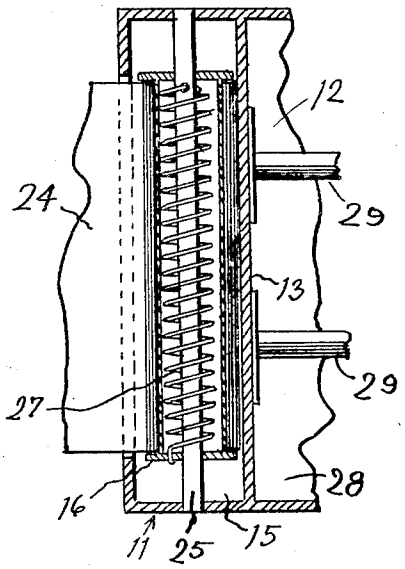


Fig. 8.




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Patented Dec. 29, 1925. 1,567,539

# UNITED STATES PATENT OFFICE.

YASABURO MORIMOTO, OF HOLLYWOOD, LOS ANGELES, CALIFORNIA.

## AUTOMOBILE TRAFFIC SIGNAL.

Application filed April 16, 1924. Serial No. 706,895.

*To all whom it may concern:*

Be it known that I, YASABURO MORIMOTO, a subject of the Emperor of Japan, residing at Hollywood, in the city of Los Angeles, county of Los Angeles, and State of California, have invented a new and useful Automobile Traffic Signal, of which the following is a specification.

This invention relates to certain novel improvements in direction indicating devices for automobiles, and has for its object the provision of elements which will embrace the desired features of simplicity, efficiency, durability, and which will operate efficiently and effectively for the intended purpose, and which is adapted for operation both during the day and night.

It is to be understood that the intention of the signal device is to show by the direction of the semaphore, the way the automobile is to turn. If the automobile is to stop, both semaphores will be thrown to operative position.

It is a design of the invention to provide a signal which will be compacted to a minimum size in its inoperative position.

Other objects and advantages will appear in the subjoined detail description.

In the drawings, Figure 1 is a sectional and side elevation of my improved signaling device, showing the lowermost signal elements in the display position, for indicating a left-hand turn. Fig. 2 is a sectional and side view of the device. Fig. 3 is a front elevation of the actuator device for the signals. Fig. 4 is a sectional and side view of the signaling device. Fig. 5 is a side elevation of the actuator for the signals. Fig. 6 is a sectional and side elevation showing the signaling elements for indicating a right-hand turn. Fig. 7 is a diagrammatic view showing the wiring arrangement. Fig. 8 is a detail and sectional view showing the method of mounting a roller for the fabric portion of the signal.

Referring to the drawing in detail, the housing 11, of the device, is provided with a partition 12, and with partitions 13 and 14. Within compartment 15, formed by partition 13, a roller 16 is provided, and within compartment 17, formed by partition 14, a roller 18 is provided. Mounted within the compartment 15, is an articulate semaphore member 19, of "lazy-tong" construction, and having its inner elements 20, pivotally connected on pivots 21, and its outer elements 22, pivotally connected to the bar 23. A fabric element 24, is mounted to wind upon roller 16, and has its outer end 25 fixed to bar 23. Rollers 26 and 18, are each mounted on a fixed shaft, the roller 16 being mounted on shaft 25 and roller 18, on shaft 26. In Fig. 8, of the drawing, the spring 27 is shown as coiled around shaft 25, and has one end fixed to the roller 16 and the opposite end fixed to the shaft 25. The roller 18 is provided with a similar mechanism.

Within compartment 28, formed by the housing and partition 13, there are provided the fixed guide elements 29, upon which slides a crosshead 30. A plunger 31 is fixed to crosshead 30, and has its opposite end 32 pivotally connected to the inner semaphore elements 20 and at their central pivot point. A movement of plunger 31 in one direction serves to move the semaphore elements to a collapsed or inoperative position, and a contrary movement of plunger 31, tends to move the semaphore elements to an extended or operative position. Springs 33, interposed between the partition wall 13 and crosshead 30, tend to maintain the semaphore elements in their collapsed or inoperative position. A cable 34, having one end fixed to the crosshead 30, passes over a pulley 35, and then extends outwardly through the tubular portion 36, of the housing, and over a pulley 37. Means for mounting the device on the automobile consists of a clamp member 38, which is adapted to be clamped to the windshield of the automobile, and which has a loop portion 39, extending around the tubular part 36, of the housing.

Semaphore 19 extends horizontally, and semaphore 40 in an upwardly inclined position when actuated to their respective display positions, and both extend through corresponding slits in the walls of the housing. Semaphore 40 extends, in display position, through slit 41 in inclined wall 42. Semaphores 19 and 40 are similar in construction and operation.

Each semaphore is adapted to be illuminated both by day and by night. Means for accomplishing this consists of fixed switch members 43 and movable switch members 44, mounted on pivot studs 45. Each movable member has a lever 46, adapted to be actuated by a corresponding crosshead member 30, and each switch controls a circuit including illuminating bulbs 47, which are mounted within the smaller compartments.

Said compartments have each an aperture 48, allowing the semaphore to be illuminated in its display position. Each movable switch member has a spiral spring 49, tending to maintain the movable switch member into contact with the fixed member. The switches are actuated to open position upon movement of the semaphores to inoperative position.

A cable 50 is provided for actuating signal member 40. Cables 34 and 50, are connected, respectively, to levers 51 and 52, which are mounted on sectors 53. Springs 54, in slots 55, serve to engage with and retain levers 51 and 52 in their operative position. Sectors 53 are adapted to be secured to the dash of the automobile (not shown), and in a position within convenient reach of the automobile driver.

In use, the driver of the automobile will pull a lever downwardly, which, through a corresponding cable, will actuate a crosshead to a forward position and thereby actuate a sempaphore to its extended and operative position. The corresponding switch is released and actuated by its spiral spring to closed position, thereby energizing corresponding illuminating bulbs for the signal in its display position.

The fabric element of the signal may be colored if desired. as for instance, the signal 19, a red color, and the signal 40, a green color. To indicate a turn to the right, signal 40 is actuated to display position, and to turn to the left, signal 19 is actuated to display position. A stop may be indicated by actuating both signals to display position simultaneously.

What is claimed is:

1. The combination with a housing having a series of compartments, of a collapsible signal semaphore mounted in each compartment, means for extending each collapsible semaphore from its corresponding compartment, a fabric signal element associated with each collapsible semaphore, and connected to the outer extremity thereof, and a spring-actuated roller for each fabric signal element.

2. In combination, a housing, collapsible semaphore elements mounted within the housing, a plunger connected to the collapsible elements, crosshead guides within the housing, a crosshead connected to each plunger and slidably mounted on a pair of guides, springs interposed between the crossheads and the inner wall of the housing, a pulley mounted within the housing and adjacent to the inner wall, a cable connected to each crosshead and passing over a respective pulley, a tubular extension to the housing, other pulleys mounted at the end of the extension, said cables passing over the last-named pulleys, a sector member located at a distance from the housing, levers on the sector member, said cables being connected to said levers, springs arranged to hold said levers in their operative position, flexible fabric signal elements associated with said semaphore elements, a bar at the outer extremity of said collapsible semaphore elements, said fabric being connected to said bar, rollers mounted within the housing, said fabric elements being connected to the rollers, and springs to actuate the rollers and tending to wind the fabrics on their respective rollers.

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