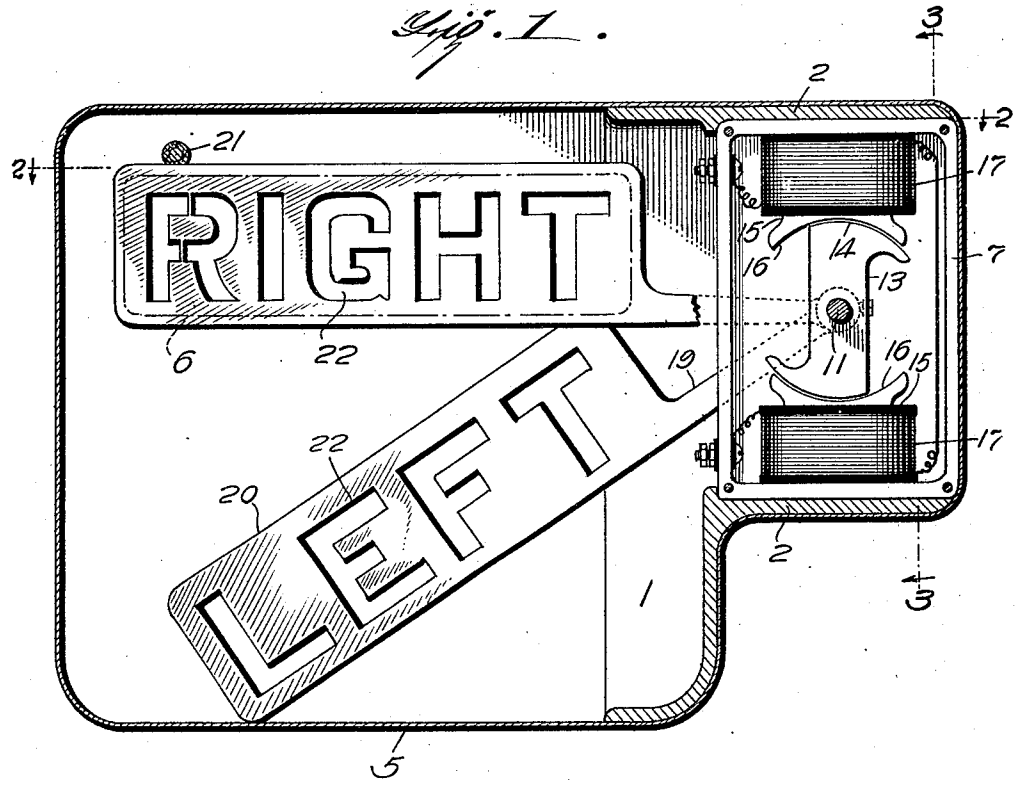
Oct. 1, 1929. L. M. TARTAGLIA 1,730,098

ELECTRIC TRAFFIC SIGNAL

Filed June 22, 1925 2 Sheets-Sheet 1

Fig. 1.



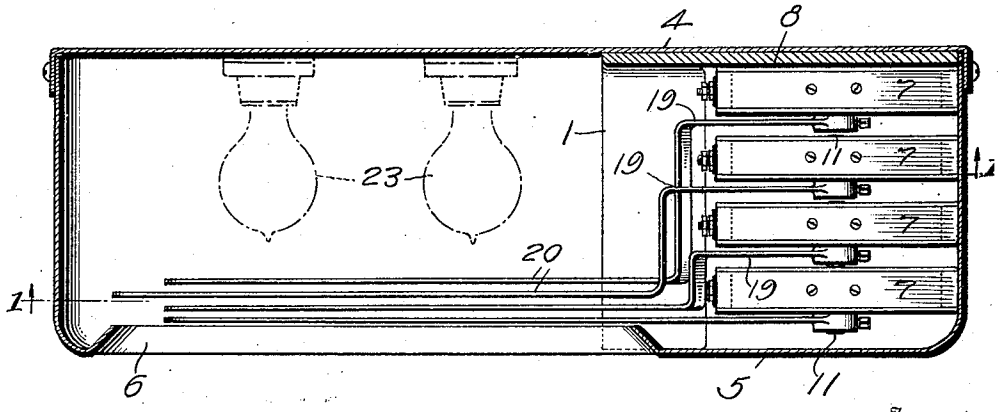


Fig. 2.

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Filed June 22, 1925 2 Sheets-Sheet 2

Fig. 3.

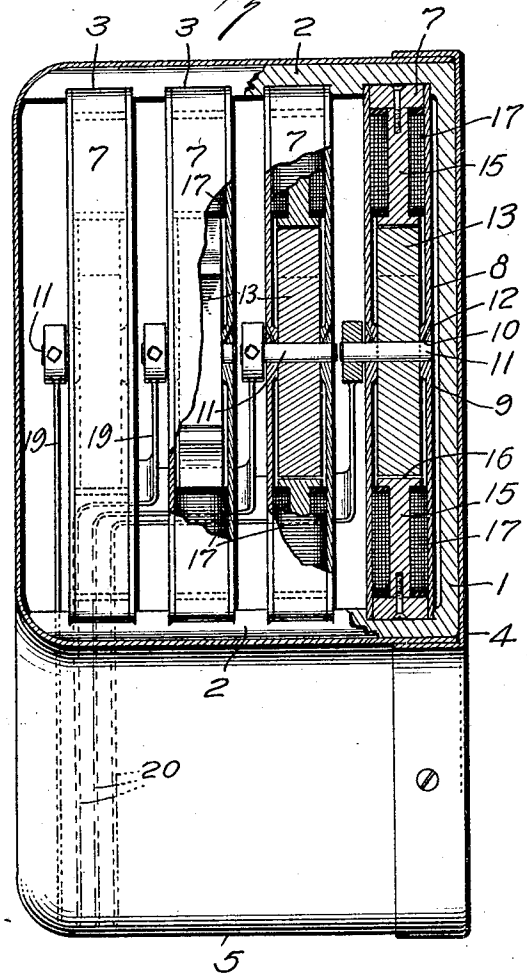


Fig. 4.

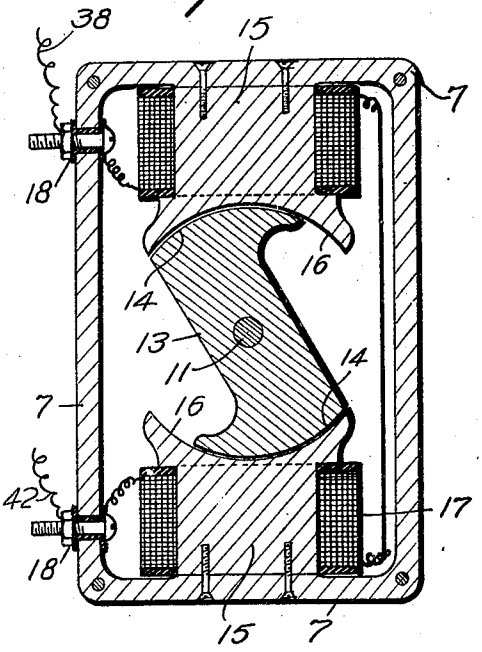
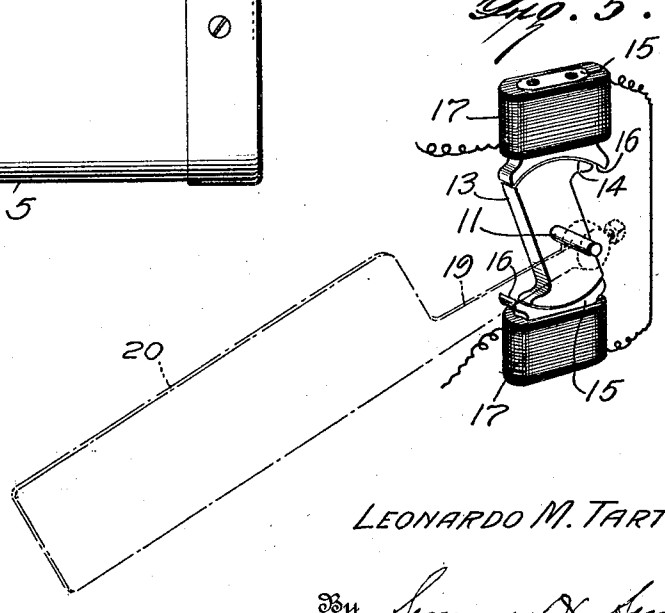


Fig. 5.



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UNITED STATES PATENT OFFICE

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ELECTRIC TRAFFIC SIGNAL

Application filed June 22, 1925. Serial No. 38,322.

This invention relates to signal devices and more particularly to electric traffic signals.

An object of the invention is the production of an electrically operated signal device to indicate the direction of an automobile, or an alike vehicle.

Another object of the invention is the production of an electrical signal device operated by the clutch pedal, and therefore, under the immediate control of a driver at all times without the necessity of removing his hands from the steering wheel.

Another object of the invention is the production of an electrically operated signal designed to be actuated by the operation of the clutch pedal, so that it will automatically upon throwing the clutch out of engagement, be actuated to display indicia to give notice to any traffic of the driver's intention to slow down, to stop, or to turn to the right or left.

A further object of this invention is the production of an electrically operated traffic signal for use in connection with automobiles and alike vehicles, so designed that it may be easily and quickly attached or removed without necessitating any particular skill.

A further object of the invention is the production of an electrically operated traffic signal for automobiles, comprising a plurality of semaphores connected to and operated by armatures, the armatures being energized through electrical connections with an actuating pedal mounted upon and operated simultaneously with the clutch pedal.

A still further object of my invention is the production of an electrically operated traffic signal having a plurality of semaphores, which may be selectively actuated from the normal state of inactivity into a display position, the semaphores being mounted upon arms connected to armatures pivotally mounted between corresponding poles having mounted thereupon field magnets connected to an actuating pedal. The actuating pedal is mounted upon a clutch lever of a machine in such a manner that upon the operation of the clutch by a driver, it will close a circuit to actuate an armature and cause the same to lift a semaphore in such a position as to give a positive indication of the driver's intention as to his direction of travel, speed or stop.

Yet a further object of my invention is to provide an electrically operated traffic signal which has the advantage of a positive indication of the driver's intention and is highly efficient in operation, yet of marked simplicity as a whole and in respect to each of its component parts, so that its manufacture may be economically facilitated both as regards to parts and their assembly.

With these and other objects in view which may be incident to my improvements, the invention consists in the parts and combinations to be hereinafter set forth and claimed, with the understanding that the several necessary elements comprising my invention, may be varied in construction, proportions and arrangement, without departing from the spirit and scope of the appended claims.

In order to make my invention more clearly understood, I have shown in the accompanying drawings means for carrying the same into practical effect, without limiting the improvements in their useful applications to the particular constructions, which for the purpose of explanation, have been made the subject of illustration.

In the drawings forming a part of this specification:

Figure 1 is a front elevation with the housing removed,

Fig. 2 is a cross sectional view taken on line 2—2 Figure 1,

Fig. 3 is a vertical sectional view taken on line 3—3 Figure 1,

Fig. 4 is a detail view in section illustrating one of the armature boxes with armatures, poles, and field magnets in position,

Fig. 5 is a perspective view illustrating the field magnets and an armature with semaphore attached.

Referring by numerals to the drawings, 1 represents a cast shell of any suitable alloy which will impart strength and rigidity to the structure, and yet be light and durable. This shell is provided with right angular flanges 2 in parallel relation to each other. The flanges 2 are provided with a series of grooves 3, the object of which will be herein-

after described. The shell 1 is mounted upon a suitable back plate 4 and is provided with a housing 5 having a longitudinal opening 6 through which the semaphores to be hereinafter described will be displayed.

The grooves 3 are designed for the reception of armature casings comprising a pressed metal frame 7 rectangular in general contour. The frame 7 is provided with corresponding side plates 8 having thickened or enlarged central portions 9 provided with apertures 10 in which is journaled a shaft 11. Oil ducts 12 extend through the thickened portions in diagonal positions so as to provide a means for lubricating the shaft.

Mounted upon the shaft 11 and secured thereto by key 11^a is an armature 13 substantially **S**-shape with arcuate end portions 14 adapted to rotate between similar poles 15 mounted in the respective ends of the frame 7. The poles 15 have arcuate faces 16 in juxtaposition to the arcuate ends 14 of the armature 13. A field winding 17 is wound around each of the poles 15 and connected together by a suitable lead, the opposite end of these windings being connected with binding posts 18 mounted in the wall of the frame 7.

Mounted upon the shaft 11 and adjustably secured thereto by a set screw 19^a is an arm 19 which is adapted to be operated by the armature 13. When the armature casing has been assembled as above described, the casing is inserted in the groove 3, with its attached semaphore resting in the housing 5, beneath the opening 6, in such a position that it will be concealed, such position being the position of rest. When contact is made with a source of electric current and a magnetic flux is set up to energize the armature 13, the armature will take the position as indicated in Figure 1 and since the armature is secured to the shaft 11 upon which is keyed an arm 19 having mounted thereupon a semaphore 20, the semaphore will be raised in a horizontal position so as to display the indicia, as clearly shown in Figure 1. The upward movement of the semaphore is controlled by a cushion stop 21 arranged in such relation to the opening 6 as to display the indicia in proper alignment with respect to the opening.

It is to be noted that while I have illustrated four semaphores so arranged within the casing as to display the four conventional signs used upon automobiles, such as right, left, slow, and stop, it is to be understood that the casing and arrangement of the various parts may be limited to one or more of such semaphores, as are herein shown and described. In many cases semaphores displaying the right and left turns are not desired, some owners of cars prefer only the slow and stop signals.

These signals or the indicia may be displayed in any desirable manner, preferably by transparent indicia such as is indicated at 22 in Figure 1, in order that the same may be more vividly shown by a lamp 23 on the back 4 of the casing, immediately back of the opening 6. The arrangement of the lights is but a matter of choice in the production of the signal.

While I have shown and described the preferred embodiment of my invention, I wish it to be understood that I do not confine myself to the precise details of construction herein set forth, by way of illustration, as it is apparent that many changes and variations may be made therein, by those skilled in the art, without departing from the spirit of the invention, or exceeding the scope of the appended claims.

Having thus described the various features of my invention what I claim as new and desire to secure by Letters Patent is:

1. In an electrical signal, a frame, a pole mounted in each end of the frame, arcuate ends upon the poles, field windings wound upon the poles, an **S**-shaped armature fixedly mounted upon a shaft journaled between the poles and a semaphore adjustably secured upon the shaft.

2. In an electrical signal, a frame, a pole mounted in each end of the frame, the free end of the poles having arcuate faces, field windings upon the poles, plates secured to the respective sides of the frame, a shaft journaled in the plates, an armature fixedly mounted on the shaft between the poles and a semaphore adjustably secured upon the shaft.

3. In an electrical signal, a frame, a pole mounted in each end of the frame, the free ends of the poles having arcuate faces, field windings wound upon the poles, the field windings being connected with their terminals secured to binding posts mounted in the frame, plates secured to the respective sides of the frame, enlarged portions in the center of the plates, a shaft journaled in the enlarged portions, an armature fixedly mounted upon the shaft between the poles, and a semaphore adjustably secured to one end of the shaft.

4. In an electrical signal, a frame, poles mounted in the respective ends of the frame, the free ends of the poles having arcuate faces, field windings wound upon the poles, the field windings being connected and having their terminals secured to binding posts mounted in the frame, plates secured to the respective sides of the frame, enlarged portions in the center of the plates, a shaft journaled in the enlarged portions, means for lubricating the shaft, an armature fixed upon the shaft, the armature having arcuate ends adjacent to the arcuate ends of the poles, and a semaphore adjustably secured to the shaft.

5. In an electrical signal, a housing, a shell

open at both ends mounted in the housing, a series of grooves in the shell, extending substantially the full length thereof and having projections at one end, a series of frames enclosing an armature and pole pieces, the frames adapted to fit within the grooves and abut against said projections, and semaphores connected with the armatures in the frames.

6. In an electrical signal, a housing, a shell open at both ends mounted in the housing, a series of oppositely disposed grooves within the shell extending substantially the full length thereof, a series of frames enclosing an armature and pole pieces, the frames adapted to fit into the oppositely disposed grooves and abut against the housing at one end and projections in the grooves at the other end, semaphores rigidly connected with the armatures mounted in the frames, and an opening within the housing for displaying the semaphores.

7. In an electrical signal, a housing, a shell mounted in the housing, a plurality of oppositely disposed grooves in the shell for the reception of a series of casings, each casing enclosing an armature and pole pieces, a semaphore rigidly connected to the armatures in the casings, and an opening within the housing for displaying the semaphores.

8. In an electrical signal, a housing having an aperture therein for the display of a semaphore, a shell mounted within the housing, a series of oppositely disposed grooves in the shell, a series of casings each enclosing an armature and pole pieces, the casings supported in the oppositely disposed grooves and abutting the housing on one end and projections in the grooves on the other end, and a semaphore rigidly connected to each of the armatures.

In testimony whereof I affix my signature.

LEONARDO M. TARTAGLIA.