May 20, 1930. F. TRAUTMAN 1,759,247

SIGNAL

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Fig. 1.

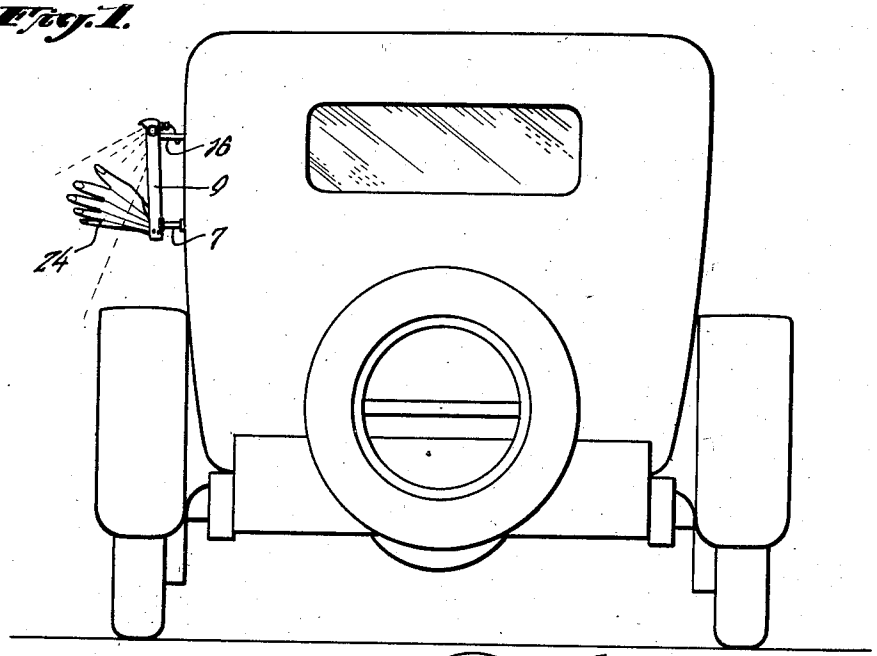
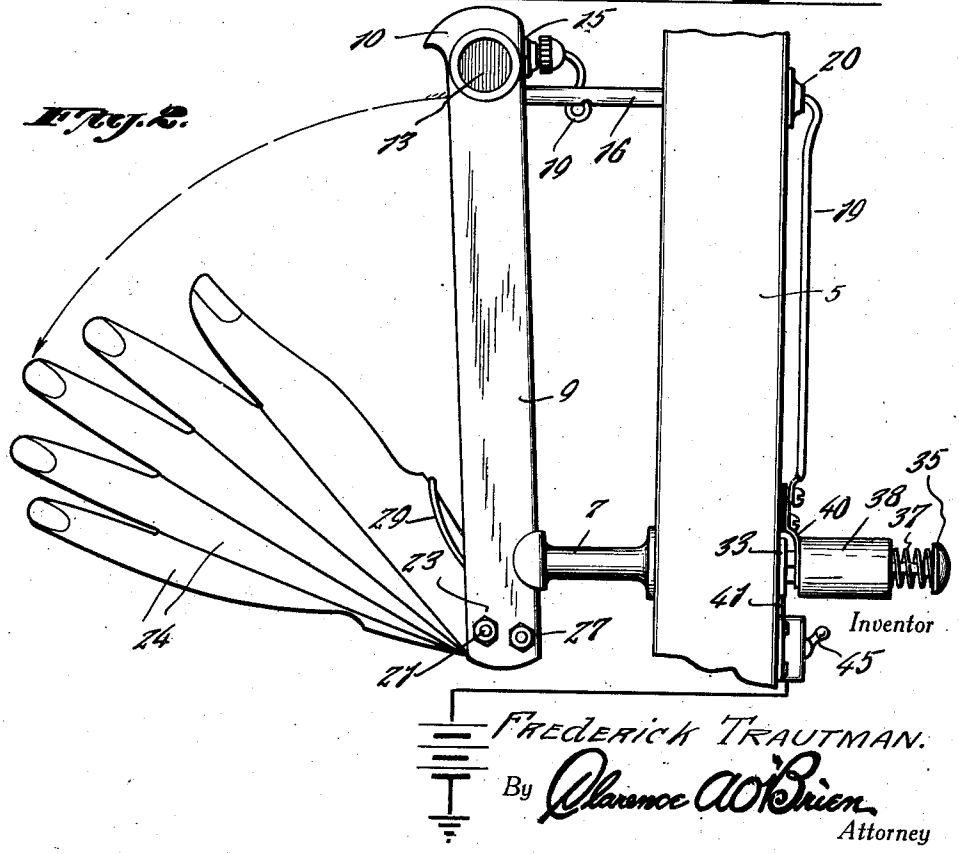


Fig. 2.



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Fig. 3.

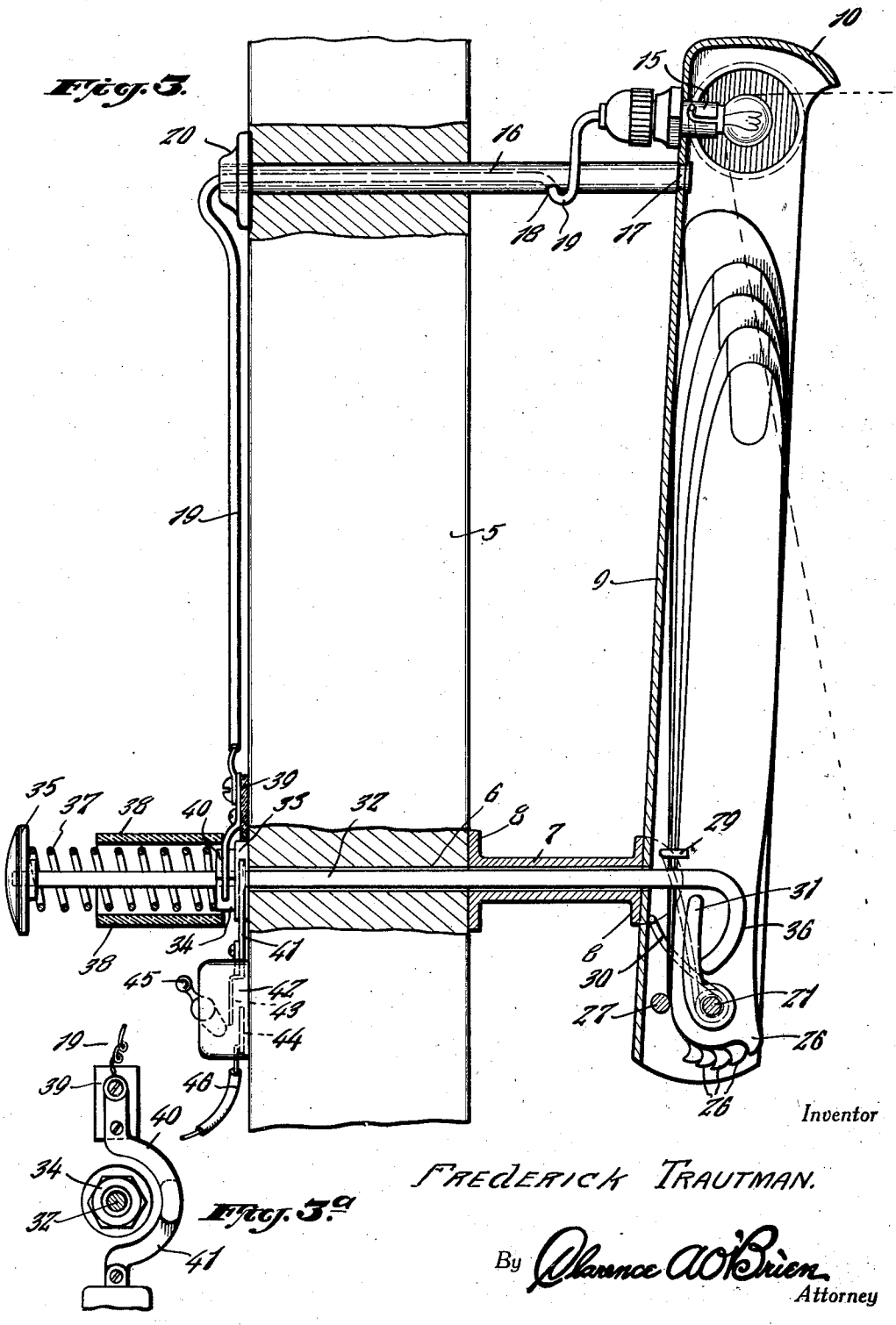


Fig. 3a.

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Fig. 4.

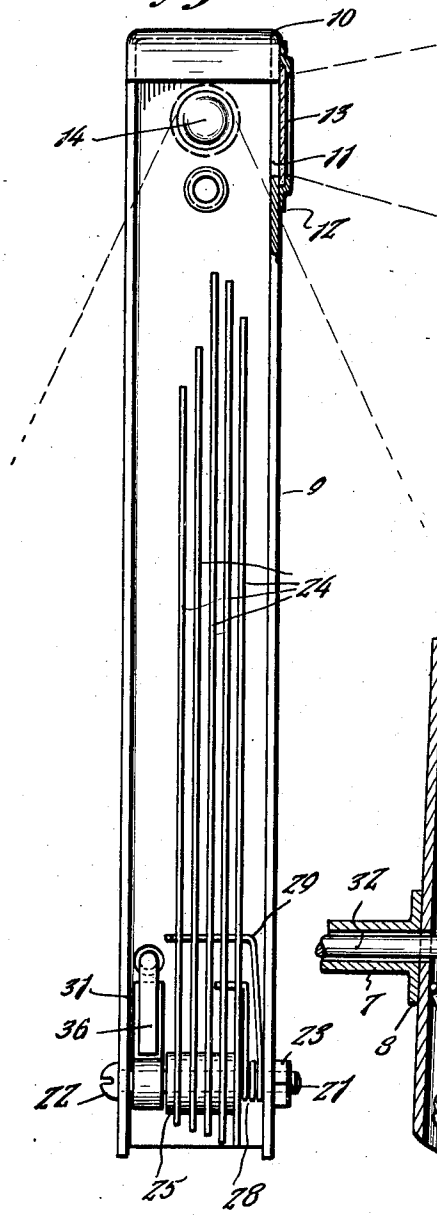
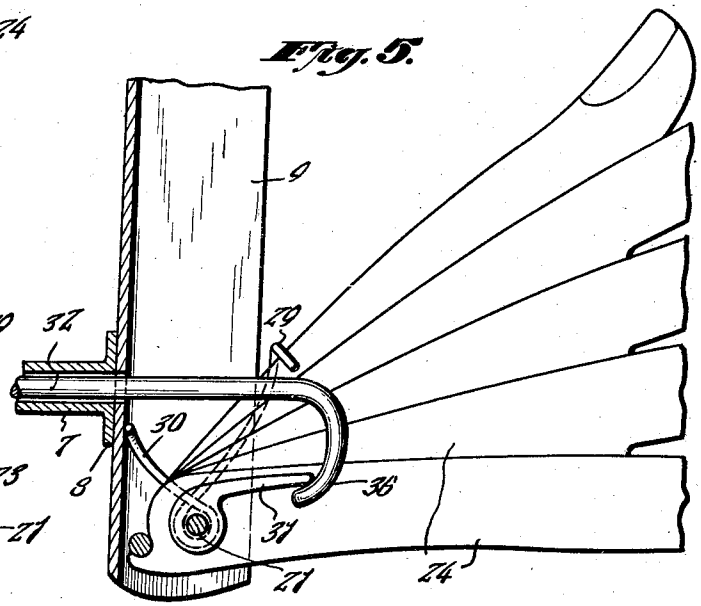


Fig. 5.



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Fig. 6.

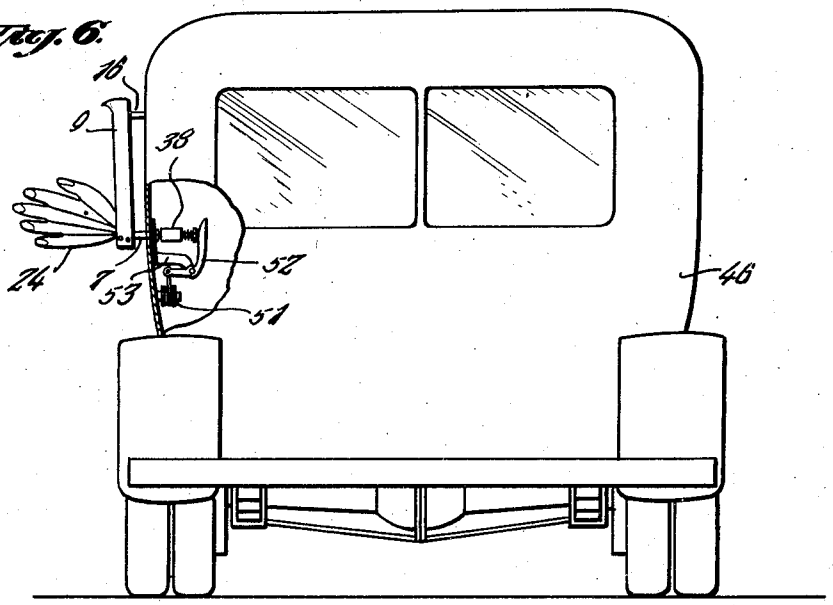
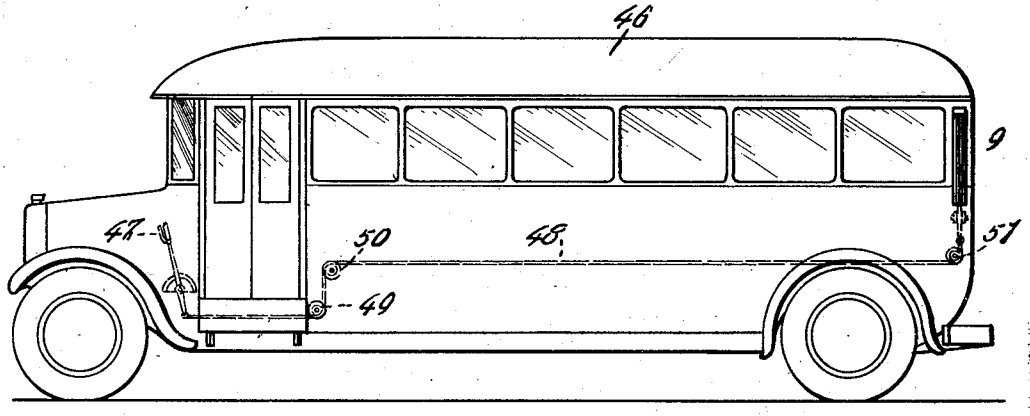


Fig. 7.



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UNITED STATES PATENT OFFICE

FREDERICK TRAUTMAN, OF FREEPORT, NEW YORK

SIGNAL

Application filed July 1, 1929. Serial No. 375,071.

This invention appertains to new and useful improvements in the art known as signals and indicators, and more particularly to a novel, manually operable signal of the semaphore type especially adapted for use on motor vehicles.

The principal object of this invention is to provide a signal of the character mentioned which in use will be far more effective and appealing than signal devices now in use upon vehicles.

Another important object of the invention is to provide automatic means for illuminating the signal at night.

These and numerous other important objects and advantages of the invention will become more apparent to the reader after considering the invention as described and claimed hereinafter.

In the drawings:

Figure 1 represents a rear elevation of a conventional motor vehicle equipped with the novel signal.

Figure 2 represents a rear side elevation of the signal with the semaphore in extended position.

Figure 3 represents a fragmentary sectional view showing the signal housing in longitudinal section to disclose the semaphore in retracted position.

Figure 3ª represents a vertical sectional view taken through the pushrod to disclose the automatic switch means for illuminating the signal at night.

Figure 4 represents a side elevation on the outer side thereof, the same being in partial section to disclose the bullseye.

Figure 5 represents a fragmentary vertical sectional view disclosing the semaphore in extended position.

Figure 6 represents an end elevation of a motor vehicle partly broken away to disclose the construction of a slightly modified form of the invention.

Figure 7 represents a side elevation of a motor bus equipped with the modified form of the invention disclosed in Figure 6.

Referring to the drawings, wherein like numerals designate like parts, it will be seen that 5 denotes a portion of the automobile body, preferably the post between the front and rear doors on the left side of the vehicle.

The post 5 is provided with a bore 6 extending therethrough and in registry with the bore 6 is a tubular bracket 7 having flanges 8 at its ends. One end of the bracket is secured to the outer side of the post 5, while the flange at the outer end of the bracket is secured to the elongated signal housing 9 adjacent its lower end.

The housing 9 has a downwardly curved and seated upper end 10 while its lower end and outermost side are open. The rear side of the housing is provided with an opening 11 and rim 12 secured to the housing around the said opening 11 for securing a translucent pane 13 over the said opening 11. An electric bulb 14 is mounted within the upper portion of the housing for connection to the socket member 15.

An elongated tube 16 extends through an opening in the post 5 at a point above the floor 6 and protrudes outwardly beyond the outer side of the post in the manner clearly shown in Figure 3. The outer end of the tube is connected to the housing adjacent its upper end as at 17. An opening 18 in the portion of the tube projecting beyond the outside of the post 5 has the conductor 19 extending from the socket 15 trained therethrough and through the tube 6. The conductor 9 is led through the inner end of the tube 16 and is protected by an insulating collar 20.

A bolt 21 is disposed horizontally through the lower portion of the housing 9, the head 22 thereof being adapted to engage one side of the housing, while a nut 23 threadedly engaged on the bolt is adapted to bear against the opposite side of the housing. The bolt is free to rotate and has a plurality of fingers 24 connected thereto rigidly in the manner as shown in Figure 4. Each of the fingers is generally constructed to simulate a human finger (including the simulation of the finger nail) and each finger is provided with an opening at its inner end for receiving the bolt 21, while collars 25 firmly secure the fingers to the bolt, so that the fingers will swing with the same.

Each of the fingers is provided with a lug

26 at its pivoted end and these lugs are so arranged in offset relation when the fingers are in retracted position (see Fig. 3). A stop pin 27 is arranged horizontally within the lower portion of the housing 9 and against this pin the lug 26 may abut and the fingers 24 will assume the offset position shown clearly in Figure 5 after they have been projected to that position by the action of the spring 28. The spring 28 is convoluted on the bolt 21 and has one end 29 bearing against the fingers, while its opposite end 30 impinges against the inner wall of the housing.

A bellcrank 31 is secured to the bolt 21 and moves co-ordinately with the adjacent finger of the group. An elongated pushrod 32 is slidably disposed through the core 6 and tubular bracket 7, in the manner clearly shown in Figure 3.

At the inner side of the post 5, the pushrod is guided through a collar 33 and a nut 34 is mounted thereon. The inner end of the pushrod 32 is provided with a knob 35, while the outer end of the pushrod has a downwardly disposed hook 36 for engagement with the bellcrank 31. A compressible coiled spring 37 is interposed between the knob 35 and the collar 33 and serves to normally maintain the pushrod in an inwardly disposed position. See Figure 3.

A sleeve 38 of suitable insulating material is arranged on the coiled spring 37 in the manner shown clearly in Figure 3. A block 39 of suitable di-electric material is secured to the inner side of the post 5 and a spring contact arm 40 projects downwardly therefrom. The spring contact arm 40 spacedly overlaps a second contact 41, which projects upwardly from a switchbox 42. The switchbox 42 has a flexible arm of conductive material denoted by numeral 43 mounted therein and in connection with the contact 41, while a stationary contact 44 is also mounted within the switchbox and is to be engaged by the contact 43 when the latter is actuated by the control 45. A cable 46 leads to a suitable current supply source, while the conductor 19 is connected to the aforementioned spring arm 40.

It will thus be seen that when the knob 35 is pressed so as to release the hook 36 from the bellcrank 31, the action of the spring 28 will project the fingers 24 outwardly so that they will assume the position shown in Figure 5. Simultaneously with this function, the engagement of the knob 35 against the sleeve 38 with some degree of pressure, will result in the contacting of the spring arm 40 with the contact 41, and if the spring contact 43 is engaged with the stationary contact 44 in the switchbox current will be supplied through the conductor 19 to the bulb 14, thus projecting a light onto the signal element.

A slightly modified form of the invention is shown in Figures 6 and 7, wherein a box 46 is shown provided with a hand lever 47 (any suitable rack and detent if desired) which has a flexible element 48 connected to the lower end thereof and trained over the pulleys 49 and 50. The flexible element 48 is also trained over a pulley 51 at the rear end of the vehicle and extends upwardly to connect to one end of an L-shaped rocker arm 52 supported by the bracket 53. The free end of the rocker arm 52 is adapted to engage the aforementioned knob 35 for projecting the same outwardly so that the semaphore fingers will assume the extended position shown.

It will thus be seen that the present invention presents numerous important features of novelty which characterize this invention as being more efficient and satisfactory in use than devices of this nature hereto used.

While the foregoing description has been in specific terms, it is to be understood that numerous changes may be resorted to in the shape, size and materials without departing from the spirit and scope of the invention as claimed hereinafter.

Having thus described my invention, what I claim as new is:

A signal for motor vehicles comprising a semaphore adapted to be mounted at the outer side of the vehicle body, a pushrod slidably disposed through the side of the vehicle for actuating the semaphore, spring means on the pushrod for normally maintaining the semaphore in retracted position, a manually operable lever, a rocker arm, one end of the rocker arm being adapted to engage the inner end of the pushrod, and a flexible connection between the opposite end of the rocker arm and the said manually operable lever.

In testimony whereof I affix my signature.

FREDERICK TRAUTMAN.