June 15, 1937. J. R. BURRESS 2,083,826

VEHICULAR TRAFFIC CONTROL SIGNAL

Filed Dec. 17, 1934

FIG. 1.

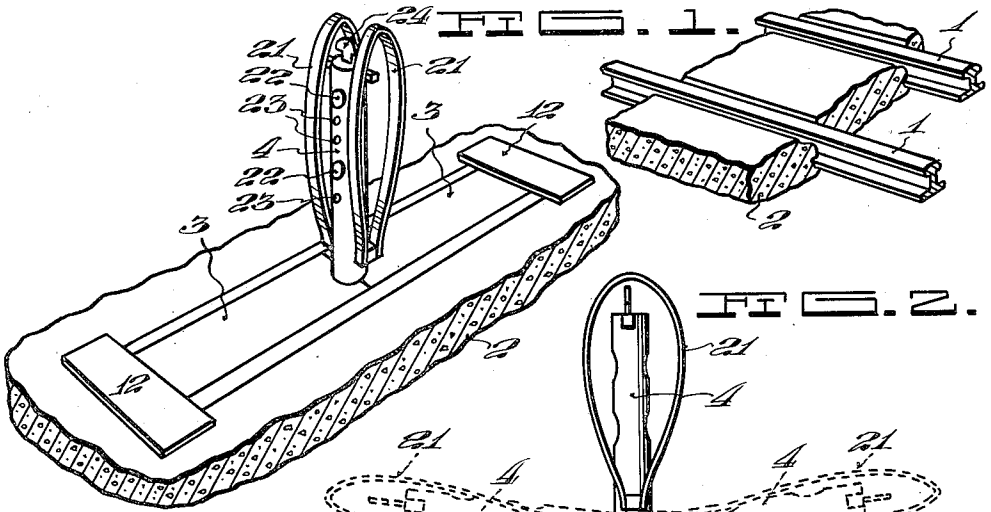


FIG. 2.

FIG. 3.

FIG. 4.

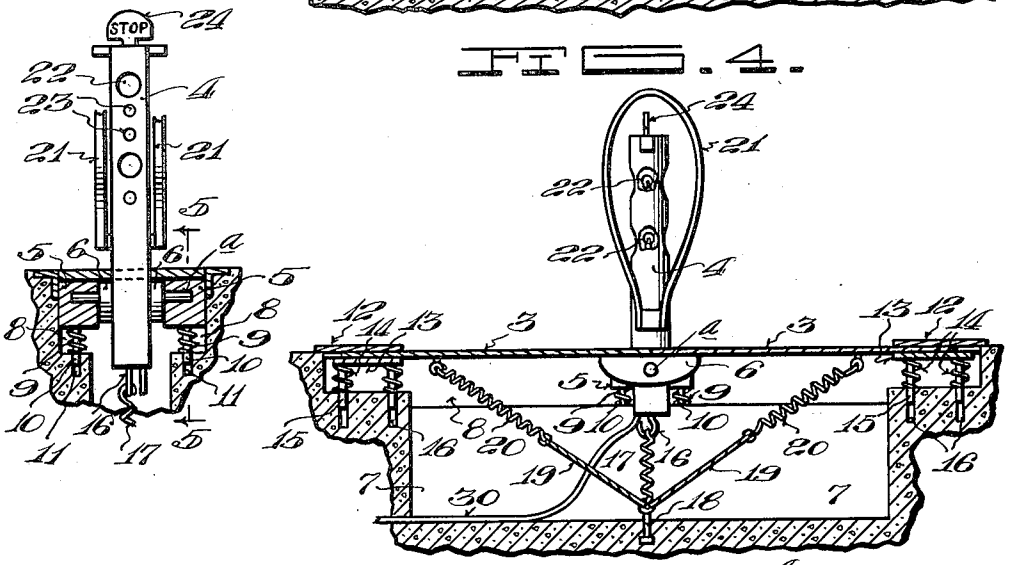
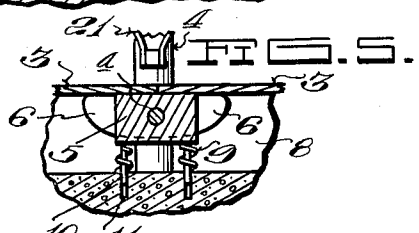


FIG. 5.



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VEHICULAR TRAFFIC CONTROL SIGNAL

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2 Claims. (Cl. 40—125)

This invention relates to vehicular traffic control signals and it has particular reference to such a signal adapted for use for controlling vehicular traffic at railroad intersections.

A particular object of the invention is to provide a signal unit which will yield to the impact of a moving vehicle in event of collision, without damage to the signal unit or to the colliding vehicle and will return to its original and normal position after the vehicle has passed thereover.

Another object of the invention is to provide a medium for protecting both the motorist and the railroad against collisions in that the motorist is warned visibly and perhaps audibly that he is approaching the railroad and is instructed to slow down or stop by suitable warnings posted on the signal unit or, by lights which are visible in the darkness, the current for which is supplied by the railroad circuit.

With the foregoing objects as paramount, the invention has particular reference to its salient features of construction and arrangement of parts which will become manifest as the description proceeds, taken in connection with the accompanying drawing, wherein:—

Figure 1 is a fragmentary view in perspective of the railroad and the signal unit in attendance thereto.

Figure 2 is an elevation, showing in dotted lines the position of the signal unit when tilted by a colliding vehicle.

Figure 3 is a front elevation showing the pivotal point in fragmentary section.

Figure 4 is a side elevation showing subsurface connections.

Figure 5 is a view on lines 5—5 on Figure 3.

Continuing with a more detailed description of the drawing, reference is primarily made to Figures 1 to 5 inclusive and in Figure 1 is shown rails 1 in the pavement 2 and the broken connection between the illustrations in Figure 1 indicates distances.

With reference to Figure 4, 3 designates a rectangular plate which is in sections opposing the signal post 4. The signal post 4 is normally in upright position as shown and is pivoted at *a* by means of the transverse shaft identified in Figures 3 and 5 by the same reference character. This shaft *a* passes through the post 4 and is journaled in blocks 5 and has affixed thereto a pair of cams 6, one of which is disposed on either side of the post 4. It will be understood that the cams 6 are rigid both with the shaft *a* and the post 4.

To install the invention it is first necessary to excavate to provide a trench 7, the sides of which are recessed at 8 to accommodate the blocks 5 which rest upon springs 9, the latter embracing pins 10. The pins 10 repose in recesses 11 which allows downward movement of the blocks 8 against the resistance of the springs 9. In other words, the pins 10 are urged into the recesses 11 when the post 4 is collided with but the springs 9 return the blocks 5 to their normal positions.

It will be noted in the drawing that the contiguous ends of the plates 3 are recessed to embrace the post 4 and overlying the opposite ends of the plates 3 are transverse plates 12 and underlying the ends of the plates 3 are similar plates 13 shown in Figure 4. These latter plates 13 are suspended by springs 14 surrounding pins 15, the latter entering recesses 16 into which the pins 15 are urged when pressure is imposed upon the plates 3.

Connected to the bottom of the post 4, which extends below the common surface of the plates 3 as shown in Figures 3 and 4 is a hook 16 and to which hook is connected a spring 17. An anchor 18 is embedded in the concrete in the bottom of the trench 7 and the lower end of the spring 17 is connected to this anchor. The cable 19 is connected to the anchor 18 on either side thereof and through the medium of a spring 20 connected to each of the cables 19, a connection is made between the anchor 18 and each of the plates 3 opposing the normally upright post 4.

Referring particularly to the upright post 4 and its peculiar construction, it will be noted in the several views that spring bumpers 21 are provided on either side of the post to protect the latter against a colliding vehicle. Should a vehicle collide with the signal, it first strikes the spring bumpers 21, displacing the post 4 to one of the two positions shown in dotted lines in Figure 2, it being understood that the post 4 pivots on the shaft *a*. When the post 4 is thus displaced, it is necessary that the opposing plates 3 be accordingly displaced both vertically and horizontally. Should the post 4 be moved to the right in Figure 4, the cam 6 will elevate the end of the left hand plate 3 next adjacent the post 4, allowing the companion plate 3 to be slightly lowered. There will result an inward pull of the plates 3, that is to say a pull toward the post 4 as well as a change in the plane of both plates. Simultaneously, with this action the blocks 5 will be depressed against the resistance of the springs 9. It will therefore become necessary for the ends of the plate 3 to slide between the

transverse plates 12 and 13 at the outer end and a resulting depression of the springs 14 beneath the plates 13.

Having been displaced, it is necessary to bring the post 4 and the plates 3 to their normal positions. This is obtained through the medium of the spring 17 connected to the bottom of the post 4, the spring and cable combinations 19 and 20 and the springs 14 disposed at either end of the trench 7 and beneath the extremities of the plate 3.

The foregoing describes the construction and operation of the signal per se except for the fact that the description fails to mention lights 22 and reflectors 23 which are disposed in spaced relationship along the length of the post 4. It is further pointed out that a stop signal 24 is provided on top of the post 4. This may be supplanted by a suitable audible signal if same is found to be practicable or necessary.

It has been stated in the preamble that the invention is particularly adaptable for the protection of motorists at intersections between railroads and highways. It is understood that the invention has been designed for this particular application but is in no wise limited thereto inasmuch as it is apparent that the particular signal unit shown may be employed at any point in a highway or street crossing where such a signal would be desirable.

Manifestly, the construction shown is capable of considerable modification and such modification as is considered within the scope and meaning of the appended claims is also considered within the spirit and intent of the invention.

What is claimed is:

1. A vehicular traffic signal including a displaceable base, means for returning said base to normal position, a pivotally mounted and displaceable upright member, and spring means for protecting said upright member against injury by a colliding obstacle.

2. A traffic signal including a pivotally mounted and normally upright member, a mounting for said member, said mounting comprising plates capable of relative displacement when said member is displaced by a colliding obstacle, and spring means for returning said upright and said plates to normal position.

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