J. M. WALSH.

STREET SEMAPHORE.

APPLICATION FILED FEB. 19, 1917.

1,313,616. Patented Aug. 19, 1919.

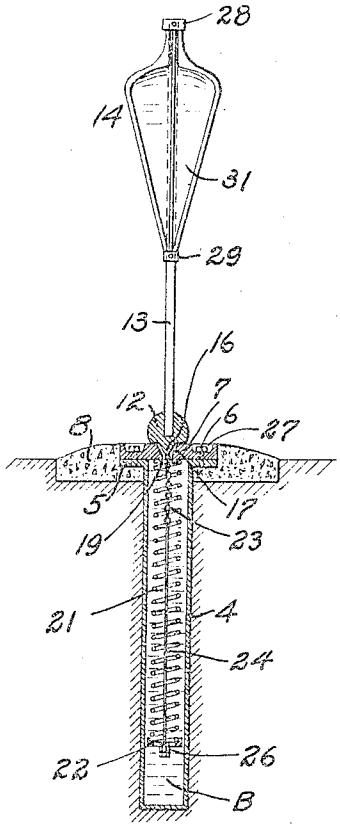


Fig. 1.

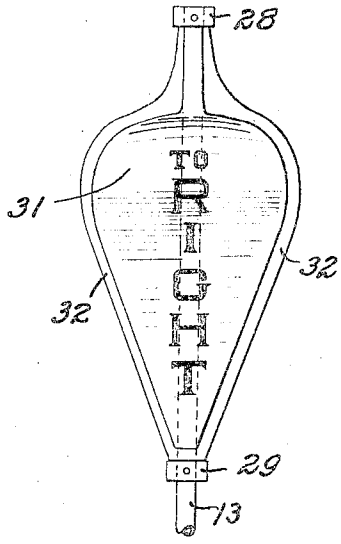


Fig. 2.

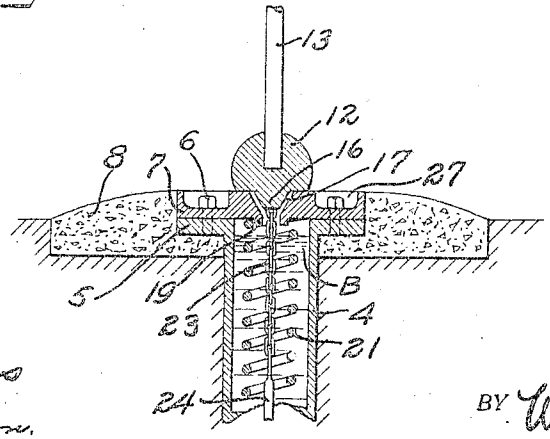


Fig. 3.

WITNESSES:

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STREET-SEMAPHORE.

1,313,616. Specification of Letters Patent. Patented Aug. 19, 1919.

Application filed February 19, 1917. Serial No. 149,420.

To all whom it may concern:

Be it known that I, JOHN M. WALSH, a citizen of the United States, and a resident of Petaluma, county of Sonoma, State of California, have invented a new and useful Street-Semaphore, of which the following is a specification.

My invention relates to street signals for the guidance and regulation of traffic.

An object of my invention is to provide a semaphore for the direction of traffic which may be permanently set in the pavement of the street at the desired location and requires no attention or handling.

Another object of my invention is to provide a semaphore yieldingly held so that when struck accidentally it gives away, but immediately after the contact reassumes its proper position.

Another object of my invention is to provide a semaphore of the character described which is nearly indestructible and certain of proper operation under all conditions which may surround its use.

The invention possesses other features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of my invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood that I do not limit myself to the showing made by the said drawings and description, as I may adopt variations of the preferred form within the scope of my invention as set forth in the claims.

Referring to the drawings:

Figure 1 is an elevation of my complete semaphore partly in section. The device is shown installed in a street pavement.

Fig. 2 is an elevation on an enlarged scale of the signal portion of the semaphore.

Fig. 3 is a sectional view on an enlarged scale of a portion of the device.

My complete semaphore consists of a signal supported upon a standard, the standard being yieldingly held in an upright position upon a mounting set into the street pavement.

A cylindrical casing 4 is provided with a flange 5 about its top edge. To this flange is attached by suitable screws 6 the cover plate 7 which forms the top of the mounting and which is flush or nearly so, with the street level. Any suitable setting may be arranged for the mounting, but I prefer to make a simple excavation in the pavement at the desired location and set the mounting of the semaphore in concrete 8 which may be finished off flush or rounded up to form a low mound as shown in Fig. 1.

Upon the cover plate rests the ball 12 which carries the standard 13 upon which the signal 14 is mounted. The ball 12 is preferably of solid metal and quite heavy, and is flattened on its base, leaving a lug 16 projecting therefrom. The flattened area of the ball rests upon the cover plate, the lug 16 projecting into a conically formed aperture 17 in the center of the plate. The relative shapes and sizes of the lug and aperture are such that the ball may be tipped over upon its side as hereinafter explained and in the recovery movement the lug engages the sides of the aperture and insures a proper seating of the ball in the position shown in Fig. 1. The lug also serves to prevent lateral displacement of the ball.

Means are provided for insuring the recovery movement of the ball and standard to an upright position after being displaced therefrom by being struck for any reason by a passing vehicle or animal.

The bottom of the cover plate 7 about the aperture 17 is provided with a flange 19. This flange forms a seat for the compression spring 21 which nearly fills the cylindrical casing 4. A flanged tie plate 22 is fitted over the lower end of the spring 21 and is connected to the lug 16 on the ball 12. Preferably this connection consists of a chain 23 and rod 24. The connection should be a flexible one at the top, for when the standard 13 is displaced from its vertical position and the ball turned over on its side, provision for relative movement between ball and cover plate must be made. Nuts 26 threaded on the end of the rod against the tie plate 22 provide a simple means for adjusting the tension of the spring 21. It is contemplated that this tension should be sufficient to cause the quick recovery of the standard 13 to an upright position after it has been displaced.

In order to prevent the parts in the cylinder from rusting, the cylinder is filled with a heavy oil, B.

At long intervals it may become necessary to clean out the dirt which will accumulate in the settling space at the bottom of the cylinder. This is easily accomplished by turning out the screws 6 and lifting up

the cover plate and attached spring. The heads of the screws 6 may be set on top of the cover plate in the usual way, but preferably I provide the cover plate with recesses 27 to contain the heads of the screws. After setting the cover plate and turning in the screws, the recess around each screw head may be filled with tar, rosin or comparable material to prevent the rusting in of the screws. This material is quickly chipped out when it is desired to remove the cover plate.

The standard 13 is formed preferably of iron pipe and may be threaded into the iron ball or the latter may be cast about the end of the pipe. Two collars 28 and 29 are fixed at the top of the standard which may be of any suitable length, and the signal 14 is rotatably arranged on the standard between the collars, so that if struck the signal yields and turns away from the colliding object without injury. Preferably the signal is formed with a plurality of faces 31 on each of which is marked the desired legend and therefore its turning does not change the directive effect of the legend. The edges 32 of the signal are heavily flanged so as to protect the faces 31.

It is contemplated that my semaphore will be installed at street intersections; to mark the boundaries of safety zones in streets with congested traffic conditions; at car stops; and at other places where its usefulness is apparent. In such locations it will be struck more or less frequently by vehicles. If only the signal portion is struck, it revolves away from the blow and the standard which may be heeled over a small amount immediately recovers its upright position. In case the semaphore is struck squarely or actually run over, the standard is knocked over upon the street against the pull of the coiled spring 21, but it immediately regains its upright position as soon as the disturbing factor has passed. The semaphore is made without projections which would catch in the under parts of a vehicle.

I claim:

1. In a semaphore, a casing adapted to be embedded in a street pavement, a cover plate for said casing, a signal standard having a flattened base arranged on said plate, means for preventing lateral displacement of said base from said plate and means for resisting other than lateral displacement of said base from said plate.

2. In a semaphore, a casing, a cover plate provided with an aperture arranged on said casing, a signal standard having a flattened base seated on said plate, a lug on said base projecting into said aperture, and means mediately connecting said lug with said plate for resisting displacement of said base therefrom.

3. In a semaphore, a casing, a cover plate provided with an aperture arranged on said casing, a signal standard having a flattened base seated on said plate, a lug on said base projecting into said aperture, a tie-plate connected to said lug and a compression spring disposed between said tie-plate and said cover plate.

4. In a semaphore, a casing, a cover plate provided with a conical aperture arranged on said casing, a signal standard having a flattened base seated on said plate, a lug on said base projecting into said aperture, a tie-plate connected to said lug, a compression spring disposed between said tie-plate and said cover plate and means for varying the tension of said spring.

5. In a semaphore, a casing, a cover plate provided with a conical aperture arranged on said casing, a ball having a flattened side seated on said base, a lug on said flattened side projecting into said aperture, a tie-plate flexibly connected to said lug, a compression spring disposed between said tie plate and said cover plate, means for varying the length of said flexible connection, and a signal standard arranged in said ball.

In testimony whereof I have hereunto set my hand at Petaluma, California, this 8th day of February, 1917.

JOHN M. WALSH.