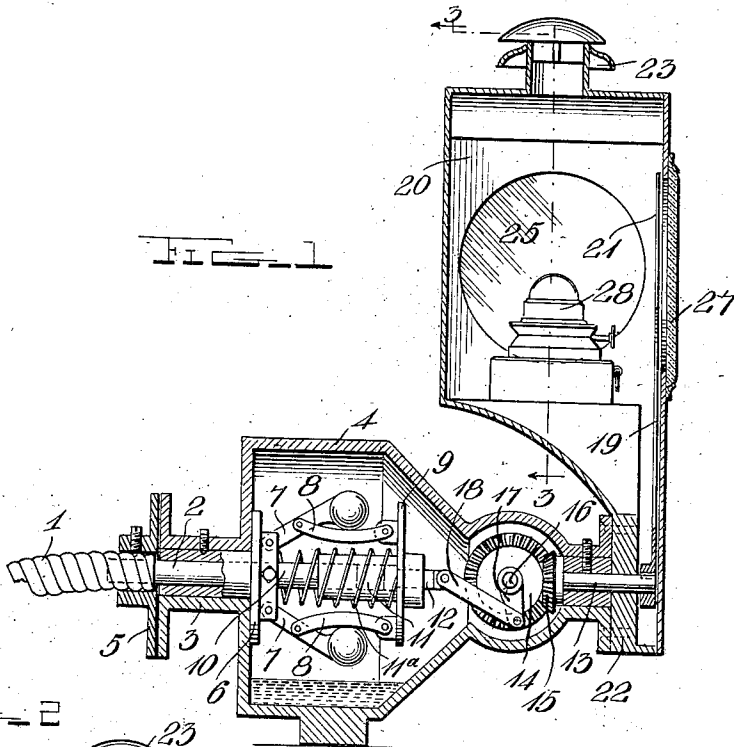
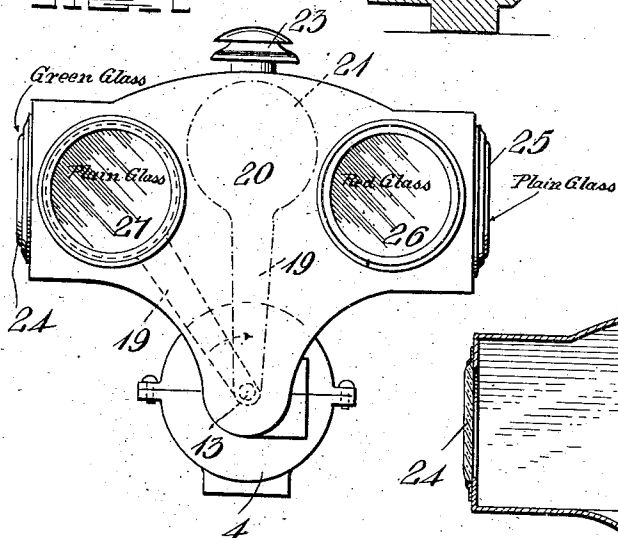


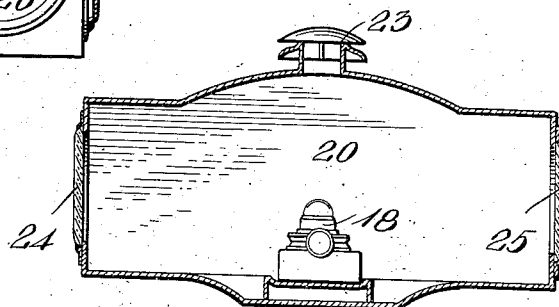
936,394.



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FILE NO.



Witnesses

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UNITED STATES PATENT OFFICE.

PAUL CLIFFORD WOODNUTT, OF PORT WASHINGTON, NEW YORK.

SIGNAL AND TAIL LIGHT.

936,394.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed January 27, 1909. Serial No. 474,456.

To all whom it may concern:

Be it known that I, PAUL C. WOODNUTT, a citizen of the United States, residing at Port Washington, in the county of Nassau and State of New York, have invented new and useful Improvements in Signal and Tail Lights, of which the following is a specification.

My invention relates to signals for wheeled vehicles of all kinds and particularly to that type which is adapted to indicate the condition of motor vehicles.

The object of the invention is to provide a device which will prevent rear collisions and which will automatically work to indicate whether the vehicle is moving or stationary and to also indicate its speed.

The structure herewith shown is also adapted to provide a light whereby the number of the vehicle may be readily seen at night, and to show a permanent green light at the side of a vehicle.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the drawing Figure 1 shows a side elevation of a device partly in section; Fig. 2 is an end elevation and Fig. 3 is a transverse section on the line 3—3 of Fig. 1.

Referring more especially to the drawing 1 represents a flexible shaft which is driven in any suitable manner as by gearing connected to one of the axles or wheels of the vehicle as is usual. This shaft has its end connected to a rigid shaft or journal 2 mounted in the neck 3 of a suitable governor casing 4 which is mounted upon a convenient part of the vehicle (not shown).

A collar, 5, surrounds the shaft at the end of the neck, 3, and a similar collar, 6, is connected thereto inside of the casing for the purpose of taking up any thrust of the shaft 2. Pivoted to the collar, 6, are the oppositely arranged weight arms 7 of the governor which have connected to them intermediate their pivotal and free ends the links 8 whose other ends are connected to the sliding collar 9 mounted upon the projecting end of the shaft 2. This collar 9 is connected to a sleeve 11 which surrounds the projecting end 10 and has swiveled in its outer end a stub shaft 12. Arranged between the collars 9 and 6 upon the sleeve 11

is a spiral spring 11^a which normally forces the collar 9 outwardly and is adapted to return all the parts to normal as will hereinafter appear.

Journalled in the casing adjacent its forward end is a shaft 13 carried upon one end of which is a beveled gear 15 which meshes with a similar gear 14 carried upon the transverse shaft 16. This shaft and gear have connected to them the crank arm 17 which is connected with a stub shaft 12 by a link arm 18. The outer end of the shaft 13 has keyed to it a semaphore arm 19 which extends up into the lamp casing 20 and is provided with a disk-like head 21 for a purpose which will be hereinafter described.

The lamp casing is secured as shown to the outer end of the casing, 4, and is provided with a thickened portion at its lower end as shown at 22 to provide a bearing for the shaft 13. The top of the casing is formed on the arc of a circle whose center is the shaft 13 and is provided with the usual ventilating cowl 23. At the left hand end of the casing an opening is made and is preferably covered with a green glass, 24, and at the right hand end of the casing a similar opening is formed which is covered by a plain glass, 25. In the front of the casing there are provided two openings adjacent each extremity thereof, the right hand opening being covered with a red glass 26 and the left hand opening being covered with a plain glass, 27. A suitable lamp, 28, is mounted within the casing and throws its light through four of the glasses: 24, 25, 26 and 27. As the disk-like head of the semaphore arm 19 normally covers the opening in which the plain glass 27 is placed, and as the semaphore is transparent and red, the only light visible from the rear are two red lights, the red glass 26 is a permanent danger signal, 20 being red and transparent covering 27 normally shows the vehicle at rest.

When the vehicle starts the governor is rotated through the shaft, 1, the weight arms 7 begin to spread and draw up on the links 8, thus turning the gear 15 through the collar 9, the stub shaft 12, the link 18 and the crank arm 14, so as to turn the shaft 13 and move the semaphore arm 19 in the direction of the arrow shown in Fig. 2. When the vehicle attains a speed of approximately four or five miles an hour, the semaphore will be in the position shown in dotted lines

in Fig. 2 and will expose both the plain and the red glasses 27 and 26. As the vehicle comes to rest the semaphore travels in a reverse direction and gradually covers the plain light. When the vehicle is at rest the plain light 27 is completely covered with the red semaphore, thus indicating that the vehicle is standing still, by displaying two red lights. The light is never interrupted to the glasses 24, 25 and thus a side light and a number light are always provided.

The casing, 4, has preferably a suitable quantity of oil in the bottom so that as the governor balls extend they splash into the oil and thereby distribute the same to the working parts.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters-Patent, is:—

1. In a signal for vehicles, a rotating shaft driven by the vehicle, a signal light having a plurality of apertures, a semaphore adapt-

ed to oscillate so as to cover certain of said openings, and means governed by the speed of the shaft for operating said semaphore.

2. In a signal for vehicles, a rotating shaft driven by the vehicle, a signal light having a plurality of apertures, different colored closures for said apertures, a semaphore adapted to oscillate so as to cover certain of said openings, and means adapted by the shaft for moving said semaphore.

3. In a signal for vehicles, a rotating shaft driven by the vehicle, a signal light having a plurality of apertures covered with different closures, a semaphore, a translucent colored disk carried by the semaphore, controlling mechanism carried by the shaft, and means operated by the controlling mechanism for oscillating said semaphore.

4. In a signal for vehicles, a rotating shaft driven by the vehicle, a signal light having a plurality of apertures, different colored glass in each of said apertures, a translucent colored semaphore adapted to oscillate across said apertures, a governor connected to said shaft, and means operated by the governor for oscillating the semaphore.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PAUL CLIFFORD WOODNUTT.

Witnesses:

CATHERINE H. BIELER,
ALLEN PERCY BAXTER.