June 28, 1938. D. M. HUMPHREYS 2,122,253

HIGHWAY SIGNAL

Filed Sept. 16, 1936

Fig. 3.

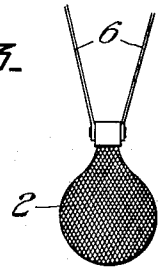
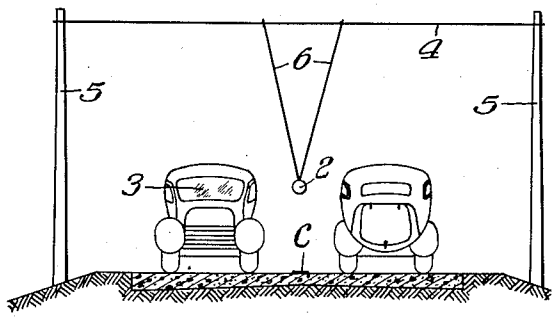


Fig. 2.



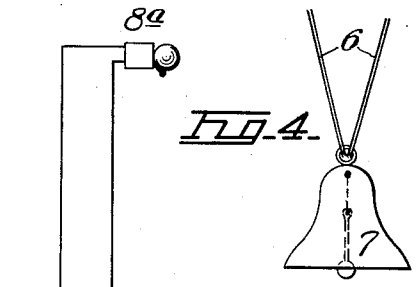


Fig. 4.

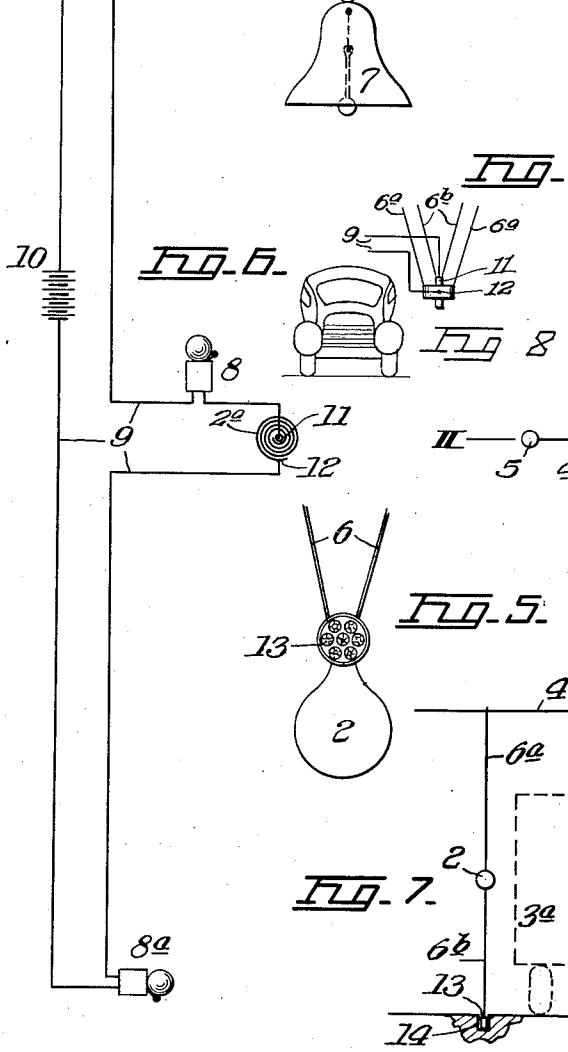


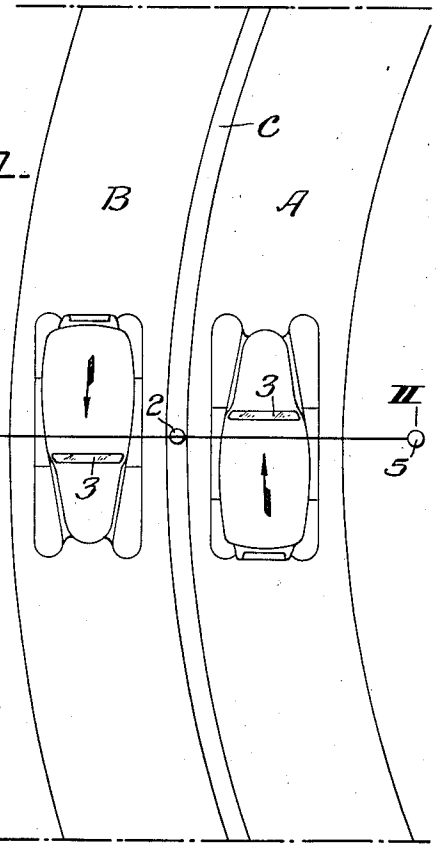
Fig. 6.

Fig 8

Fig. 5.

Fig. 7.

Fig. 1.



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Patented June 28, 1938 2,122,253

UNITED STATES PATENT OFFICE

2,122,253

HIGHWAY SIGNAL

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Application September 16, 1936, Serial No. 101,100

7 Claims. (Cl. 116—28)

My invention refers to the art of highway signals and is particularly designed as a corrective for careless, reckless or incautious driving, particularly of motor vehicles.

It comprises, in effect, means adapted to induce expected and necessary care in observing ordinary precaution and respect for the safety of the driver and occupants of his own vehicle, as well as of others using the same highway.

Also, to penalize for violations of well known rules and regulations by identification of an infringer, and resulting conviction.

Certain preferred embodiments of the invention are included in the present disclosure, but it will be understood that alternative equivalent means may be substituted for the same purpose and result.

In the drawing:

Fig. 1 is a plan view of a section of highway showing the invention in location;

Fig. 2 is a cross section on the line II—II of Fig. 1;

Figs. 3, 4 and 5 are detail views of different forms of target or contact devices which may be used;

Fig. 6 is a diagrammatic view showing an electric contact device in connection with local and remote signals and circuits therefor.

Fig. 7 is a view like Fig. 2 illustrating a modification of the target suspending means;

Fig. 8 is a view like Fig. 2 showing the invention as utilized in connection with the target of Fig. 6.

In the building and use of roadway vehicle highways it is now a common practice to provide at least two lanes A and B divided equally in certain zones or stretches by an intermediate narrow limiting band or line C, usually applied by white or other contrasting paint. Such band in accepted practice and under usual highway regulations, limits the course of the vehicle to its right hand lane as thus defined, except under certain permissible conditions.

Under certain conditions, as in driving around or approaching a curve or bend in the highway or in approaching the top of a hill, or wherever the safe extent of view is obstructed, ordinary roadway regulations as well as a common sense of danger and risk, prohibit driving onto or over the line C. Ordinarily the vehicle should maintain a safe margin inside of it.

Infraction of this regulation and generally accepted good practice in driving has resulted in many serious collision accidents, and still continues.

The object of my invention is to prevent or limit avoidable accidents by providing means for establishing evidence of violation, and by practice of it to gradually instill and inspire a proper respect and desire to avoid such violations and a necessary degree of care in driving.

In carrying out the invention we locate a warning signal in the nature of a contact target **2** suspended at a suitable location centrally above the line C at a height approximating that of the usual windshield 3 of a motor vehicle or truck.

The target is suspended in any suitable manner so as not to interfere with allowable traffic along lanes A and B, as from a cross wire **4** or the like between opposite posts **5**, **5**, of ample height for headway clearance. Preferably the target is braced by a pair of slightly inclined lateral wires or tension members **6** or other suitable means tending to maintain the target in static position, transversely of the highway, and permitting lengthwise swinging.

In effecting its purpose, when a vehicle invades the danger zone, as by running onto or over line C, it makes contact with the target at such point in the highway, and registers the event.

The specific construction, form or character of the target may be varied, but is preferably of such kind as to effect an identification of the offending vehicle. Thus it may be made of a breakable container, as glass, or of a woven wire or other bag or container filled with any liquid or viscous substance, as paint or the like. When struck by a car it will discharge and smear or spray some of such charge over the contacting portion of the vehicle, thus leaving its identifying and incriminating mark.

Alternatively, an audible signal as a bell **7** may be used as the target, similarly suspended, adapted to ring when struck and to attract notice to the offending car as well as to the driver himself.

In another adaptation of audible signalling an adjacent electric bell **8** and a remote bell **8***a*, or two sets of such bells, are connected in series by conductors **9** and battery **10** with normally open closing members **11**, **12**, of a resilient or swinging target **2***a*. In such arrangement member **12** may be in the form of a resilient leaf ring spaced annularly around and normally out of contact with a middle suspended terminal **11**. Both the ring and said terminal are supported in position by lateral wires **6***a* and **6***b*, or the like, as in Fig. 8. Such wires, like supports **6**, allow for swinging motion lengthwise of and above the line C, and conductors **9** are connected with members **11**, **12**,

so that when ring member 12 is struck, it will be thrown or pressed against contact member 11, establishing the circuit. In such case the operator of the car is notified by bell 8 and simultaneously the remote bell 8a will give notice in advance, as to a traffic officer. It will be understood that the electric circuit and contact elements are merely diagrammatic, and may be utilized with any operable contact mechanism.

Also, that when desired two such contacts may be utilized, one for each lane of the highway, spaced and independent of each other, and each in circuit with an oppositely distanced signal bell. By such arrangement the approaching car will make a first contact with the circuit closing contact toward which it is travelling, and thus assist identification. When such an installation is used with an additional marking target 2, identification and arrest of the owner of the offending car is rendered comparatively easy.

When any particular form of target is used its efficiency for night driving warning and notice may be made more complete by attachment of a light reflecting signal 13 of well known type, tending to ensure care in avoiding too close driving to the medial dividing line. Even without the reflecting signal any driver knowing of the localized placement of such targets along the highway will be apt to use special care to avoid them by respecting the roadway limitations, for his own safety and immunity from penalty.

Thus it will be seen that our invention, aside from providing for notice and identification, should also generate and develop sufficient apprehension and fear of detection to correct and overcome a too common tendency to infraction of established rules of traffic as to restraining boundary lines.

The utility and advantages of the invention will be readily understood and appreciated by all those familiar with highway motor vehicle traffic and its dangers.

It may be utilized at any of the usual portions of the road where special risks require special or even ordinary care, and is designed not only to identify violation but as an educational incentive to caution.

In application to such highways as are utilized for trucking transportation it may be desirable to provide ample clearance above the target to avoid contact with the slightly sloping double wire or other supports 6.

Thus in Fig. 7 is shown in dotted lines at 3a the comparatively higher extension of a truck which might contact one of the supports 6, even in normal driving. To avoid such undesirable contact I utilize a single suspending element 6a depending centrally of the medial line C and preferably having an extension 6b below the target 2. Such extension is connected with the highway surface in any suitable manner providing for separation under strain, as by a terminal 13 fitting frictionally in a socket 14. The target will thus be normally maintained in its desired position for use as previously described, and interference by abnormally high vehicles will be avoided.

In connection with the use of the signal, preliminary warning signs of any suitable kind may be posted along the highway, such as "Beware—Tell tale signals ahead" or the like.

By thus calling attention to them motorists may be given ample warning in advance with every opportunity to use caution and reasonable care.

The particular form of the device may be designed or utilized which is best adapted to local conditions, and it will be understood that its construction may be changed or varied by the skilled mechanic or others in utilizing it within the spirit and scope of the appended claims.

What I claim is:

1. In combination with a plural lane highway and a visible dividing line therebetween isolating each lane from the other for restrictive vehicle traffic thereover, an audible sound producing signal device 8 or 8a, a warning signal element consisting of a target 2a in operative relation to said signal device, said target being suspended vertically above and in depending register with said line at such height above the highway as to make contact with a vehicle only when said vehicle is encroaching thereon, and supporting means for the target.

2. In combination with a plural lane highway provided with an intermediate defining line, a transversely arranged support and a warning target suspended therefrom in vertical register with said line at such height as to make contact with a vehicle only when said vehicle is passing onto or over the line.

3. In combination with a plural lane highway provided with an intermediate defining line, a transversely arranged support, posts therefor at opposite sides of the highway, oppositely inclined supports depending from the transverse support, and a warning target suspended therefrom in vertical register with said line at such height as to make contact with a vehicle only when said vehicle is passing onto or over the line.

4. A warning target as in claim 2 characterized by being impregnated with a marking substance.

5. A warning target as in claim 2 characterized by being impregnated with a marking substance and provided with a reflector.

6. A warning target as in claim 2 consisting of a perforate container holding a charge of plastic marking material.

7. A warning target as in claim 2 consisting of a bell adapted to be struck by a vehicle in passing onto or over the limiting line of a highway.

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