

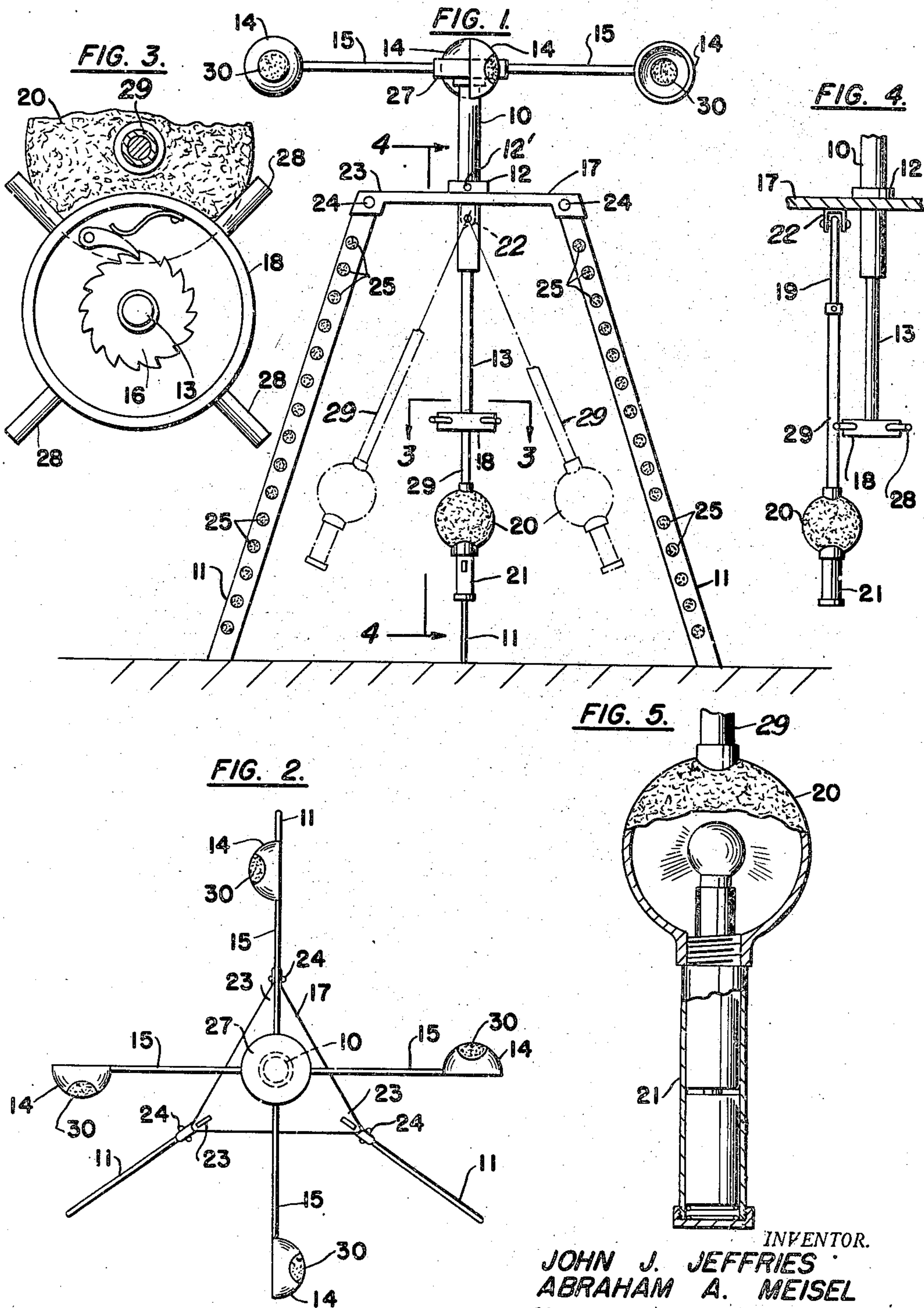
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ANIMATED SIGNAL

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ANIMATED SIGNAL

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1 Claim. (Cl. 116—63)

1

This invention relates to signals and more particularly to those suitable for use as danger lights on the highway or used to warn traffic of an unusual situation existing in the vicinity that indicates a necessity for caution in proceeding through that environment.

A number of devices have been developed and used on the highway as temporary signals used as a warning to passing traffic. In many instances such include flares that burn erratically and thereby attract attention and by convention, invite caution. In other cases, a moving light or plain reflector is utilized to perform the same duty. Their common disadvantage exists in the fact that their period of use is limited or they do not provide effective visual attraction or they are of a type that cannot be seen at a desirable distance because they are, when erected, too close to the ground.

It is therefore an object of this invention to provide a new and improved signal device for emergency use that will avoid one or more of the disadvantages and limitations of the previous art.

Another object of the invention is to provide a new and improved signal device for highway and emergency use that will be effective enough to be discernible at long or short distances and at the same time afford sufficient visual effects to attract the attention of passing traffic, and warn them accordingly.

An additional object of the present invention is to provide a new and improved highway or emergency signal device that employs a combination of artificial and reflecting visual effects in the structural arrangement of its parts, with portability and adjustability in its structure to facilitate its placement and use in any highway location.

Other objects will become apparent as the invention is more fully described.

For further details of this invention, reference is made to the attached drawings and the description following. These together outline a particular form of the invention, by way of example, and indicate the principles on which it is based, while the claim also included in this application, emphasizes the scope of the invention.

In the drawings:

Figure 1 is a side elevation of an animated signal, embodying this invention;

Figure 2 is a plan view of Figure 1;

Figure 3 is a sectional view taken along line 3—3 of Fig. 1;

Figure 4 is a sectional view taken along line 4—4 of Figure 1, and

2

Figure 5 is a sectional view taken through the reflecting pendulum to show its inner construction.

Similar reference characters refer to similar parts throughout the drawings.

In general, the device embodying this invention consists of a high tripod stand having its legs studded with reflectors, on which is supported a revolving wind vane mechanism operating a moving reflecting pendulum carrying an artificial light, intermittently illuminating the reflectors. Various adjustments are provided in the structure to enable it to conform with the terrain on which it is located.

In the particular form illustrated in the drawings a tripod stand has three converging legs 11 holding at the apex, a plate 17 and collar 12, in which an adjustable tubular casing 10 and rod 13 are held. This rod 13 inside the casing 10 projects above the legs and plate and supports a collet 27 having four hemispherical cups 14 horizontally placed at the end of radial arms 15, all of the same length. The rod 13 rotates in a ball bearing at the top of the casing 10 in a more or less frictionless manner. A ratchet 16, and star wheel 18 are adjustably mounted on the lower part of the rod 13, where the latter projects beyond the collar 12, underneath the plate 17. This adjustment is possible by raising or lowering the rod 13 within the collar 12 and securing it in place therein by means of the bolt 12. The teeth 28 of this star wheel 18 are aligned to strike a sleeve 29 slidably adjustable on stem 19 of a reflector pendulum 20 freely suspended on a bracket 22 mounted under the plate 17. The vertical adjustment of the star wheel 18 enables it to engage the sleeve 29 at different points on its length. The rod 13 is rotated by the vane cups 14 through the collet 27 as the wind blows against them, and rotates the star wheel 18 through the ratchet and pawl mechanism shown in Fig. 3, causing the teeth 28 of the latter to strike the sleeve 29 and oscillate the pendulum. A flashlight 21 is secured to the lower end of the pendulum 20 and is pointed towards the reflecting pendulum 20 so as to shine therethrough as the latter swings through its arc of travel. When the reflecting pendulum is in the form of a faceted ball, it will induce a very effective reflective response as it receives the light from oncoming vehicles. Reflectors 30 are inserted in the cups 14.

In order to provide adjustment in the position and height of the legs 11, the latter are hinged to the corners 23 of the plate 17 and are adjust-

ably held thereby by wing bolts 24. The legs 11 are studded with small reflectors 25 along their length so as to reflect light from oncoming vehicles or from any other source that may come their way. Thus the lights from an approaching automobile at night will induce reflection in the reflectors and outline the tripod stand sufficiently to attract the attention of the driver of that vehicle.

As a practical unit the device is very effective. The pendulum effect and the reflecting lights afford an unusual and active action on the highway where it is employed, that can be observed from a considerable distance, causing passers-by to pay attention to it and thus take desirable precautions. With the cups 14 themselves enamelled or otherwise treated and colored (red preferably) with a luminous paint, they in their rotation through the arcuate travel through the air afford a moving streak-of-light action to oncoming headlights that is particularly noticeable. The whole device, from the top to the bottom outlines a conspicuous signal which varies in scope and appearance as it reflects and lights up, instead of being limited to a small area. The tripod stand in practical sizes can vary in height from two feet to five feet, and when not in use may be packed into a relatively small package, by folding the legs and arms towards the longitudinal axis of the unit.

The particular use of the device is that involved when vehicles are stalled or parked on the highway, or to call attention to bodies, holes or obstructions on the highway or ditches adjacent thereto. Should the flashlight for any reason become inoperative, the device will still have practical utility by reason of the many reflectors and their arrangement on the device as well as the use of the power in drafts or currents of air, common to most highways. Such air currents or wind will provide sufficient power to operate the moving parts of the device without requiring artificially supplied energy. Also in case of necessity the vanes may be operated periodically by hand. Some of the reflectors 25 on the legs 11 are so directed towards the reflector on the pendulum as to redirect the rays of reflected extraneous illumination directed thereto independently of the flashlight.

The purpose of this is to make use of extraneous sources of light for making the moving pendulum conspicuous at times when the flashlight may not be so effective in a particular direction to an oncoming individual. In other words, the scope of reflecting characteristics of the device is increased in quantity to increase the possibilities of attraction.

While but one general form of the invention is shown in the drawings and described in the specifications, it is not desired to limit this application for patent to this particular form or in any other way otherwise than limited by the scope thereof, as it is appreciated that other forms of construction could be made that would use the same principles and come within the scope of the appended claim.

Having thus described the invention, what is claimed is:

A portable signal device for use on roadways comprising a platform, supporting legs therefor, a plurality of light reflectors on said legs, a shaft extending through said platform and supported thereby, wind-operating means for rotating said shaft, a reflecting pendulum secured to the under face of said platform, lighting means carried by said pendulum, and means for intermittently forcing said pendulum outwardly, said means consisting of a pawl and ratchet mechanism carried by said shaft and a series of extensions carried by said mechanism for intermittent contact with said pendulum during the rotation of said shaft.

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