

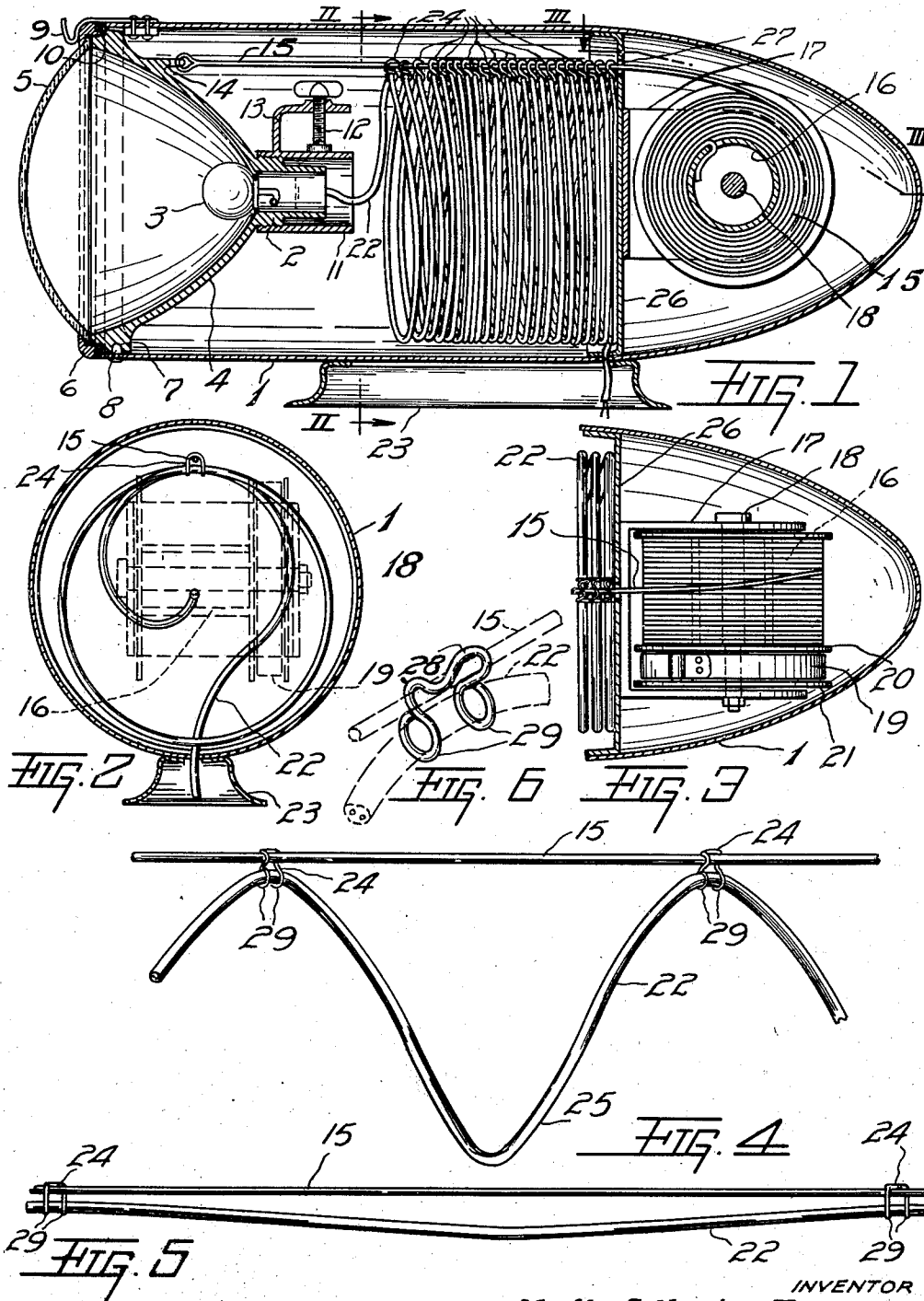
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INSPECTION LAMP FOR MOTOR VEHICLES AND THE LIKE

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INSPECTION LAMP FOR MOTOR VEHICLES
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This invention relates to an improved inspection lamp more particularly for use as an accessory to a motor vehicle. An object of the invention is to provide a small compact lamp having a detachable portion embodying the light emitting element, such as an electric lamp globe, which is capable of being conveniently withdrawn from the lamp casing and placed in the most convenient position for purposes of effecting roadside repairs, inspections of the vehicle and the like. The lamp, when fixed to a mudguard or other suitable part of the vehicle and arranged to face rearwardly, is also capable of being used to illuminate the road behind the vehicle, and thereby to assist the operation of reversing at night.

According to the invention, an electric inspection lamp for the purposes set forth, consists of a casing; a lamp socket assembly providing a detachable closure for the front end of said casing; flexible current-conducting means connecting said lamp socket assembly to a source of current supply, which conducting means is suspended at uniformly spaced intervals along its length by eyelets which co-act slidably with a resilient flexible carrier member on which they are threaded, the front end of which carrier member is attached to said lamp socket assembly, while the opposite end is attached to a spring-biased winding drum located in the rear part of the lamp casing. The arrangement is such that normally the said flexible current-conducting means is housed within the casing behind the lamp socket assembly in the form of a uniform helical coil, with each convolution thereof suspended by its eyelet from the carrier member, so that when said lamp socket assembly is detached and withdrawn, the carrier member is caused to unwind from its drum against the action of spring means co-acting therewith and the aforesaid eyelets, by sliding along it until the flexible conducting means is stretched out almost parallel therewith, thereby permits the lamp socket assembly to be withdrawn to the full extent of the carrier member without tension being applied to the flexible conducting means. It will be understood that when tension on the carrier member is released, it is rewound on to the drum by the action of its spring means, and at the same time the flexible current-conducting means is uniformly recoiled in its housed position within the casing without being kinked or tangled, as would otherwise be the case if it were not suspended in the manner described. Rear stop means in the form of a vertical plate or the like is provided in the casing in front of the winding drum, and is provided

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with an aperture, through which the carrier member is free to pass when being withdrawn from the drum or allowed to be re-wound thereon.

More particularly, the carrier member is in the form of a resilient multi-stranded wire or cable of spring steel or the like, while the current conducting means is in the form of one or a pair of insulated flexible conductors. The lamp socket assembly includes a reflector with a glass cover therefor, as well as clamping means for enabling the assembly to be attached to any convenient part of the vehicle, said assembly as a unit being detachably secured in the front opening of the lamp casing by simple finger-operated spring clip means.

To enable the invention to be more clearly understood and carried into practice, reference is now made to the accompanying drawing, in which like references denote like parts throughout the several views.

In the drawing:

Fig. 1 is a vertical sectional elevation through a lamp constructed according to the invention;

Fig. 2 is a sectional end elevation taken on line II—II of Fig. 1;

Fig. 3 is a fragmentary sectional plan view of the rear portion of the lamp casing, taken on line III—III of Fig. 1;

Fig. 4 is a perspective view showing the current-conducting member as it would appear when the lamp socket assembly is partly withdrawn;

Fig. 5 is a similar view, but showing the position of the current conductor in relation to the carrier member in its fully extended position;

Fig. 6 is an enlarged perspective view showing one of the eyelets by which the current conductor is suspended from the carrier member.

Referring to the drawing, reference 1 denotes the lamp casing, generally of cylindrical form and having its rear closed end of substantially streamlined shape. Its open front end is closed by the lamp socket assembly in the form of a detachable unit comprising a bayonet type socket 2 for a globe 3, which socket 2 forms the rear portion of a reflector 4 having a front glass cover 5 held in place by the retaining ring 6. The reflector 4 is detachably located in the front opening of the casing 1, by arranging for a recess 7 in the bottom side thereof to engage with a pin 8, whereafter its top side is engaged behind the finger-operated resilient clip 9. A resilient packing ring 10 makes a secure and weatherproof joint between the casing end and the retaining ring 6. A sleeve 11, carrying a clamping thumb screw 12

and clamping arm 13, is screwed on to the socket 2. The reflector 4 is connected by a holed lug 14 provided adjacent its top side, to the end of the carrier member 15 in the form of a resilient flexible multi-stranded cable, the other end of which is connected to a drum 16 rotatably mounted in a bracket 17 by an axle pin 18. The drum 16 is biased towards the fully wound position of the cable 15 thereon, as shown in Figs. 1 and 3, by the flat spirally wound watch type spring 19, located between the end flange 20 of the drum and an outer locating flange 21. The outer end of the spring 19 is connected to the drum flange 20, while its inner end is anchored to the pin 18 which is fixed in a non-rotatable manner in the bracket 17, so that the tendency for the cable to be re-wound on to the drum 16 increases as the cable is drawn out.

One end of the flexible insulated two-wire conductor 22 is connected to the socket 2 in known manner, while its opposite end projecting through a hole in the casing 1 as shown, is connected to a suitable source of current supply such as the battery circuit of a motor vehicle, on which the lamp is adapted to be mounted by its base fitting 23. Firmly attached to the conductor 22 at uniformly spaced intervals throughout its length, are a plurality of wire eyelets 24 which are threaded on to the cable 15, and which are so shaped that, besides being freely slidable therealong, they permit just sufficient twisting movement to allow the conductor to be suspended in substantially parallel relationship with said cable when it is fully extended, as clearly shown in Fig. 5. By this provision, as the cable 15 is fed back on to its drum 16, the loops 25 of the conductor 22 are always formed in the same direction, whereby a compact uniform helix, as shown in Fig. 1, with its convolutions all of equal size, is each time formed against the vertical stop plate 26 which is provided with a hole 27 adjacent its top side, through which the cable 15 passes freely.

It will be noted that each of the eyelets 24 is of substantially inverted U-shape, and is immovably fixed to the conductor 22 by its two looped ends 29 which encircle the conductor tightly. The two limbs of each eyelet at their top ends are deformed outwardly in opposite directions to an extent which will enable the eyelet as a whole to twist about the cable 15 in one direction to an

extent which will allow the axis of the looped ends 29 thereof to lie in substantially parallel relationship with the cable 15, as shown in Figs. 5 and 6.

The oppositely directed deformations 28 are preferably curved to suit the diameter of the cable 15, so that it fits snugly therein, as clearly shown in Fig. 6.

Preferably the lamp casing 1 is fixed to the nearside front mudguard by the base 23, so that its front end faces in a rearward direction. The end of the conductor 22 is then connected to a switch which is closed whenever the gear lever is placed in the reversing position, thereby enabling the driver to back his vehicle safely at night.

What I claim is:

1. In combination, a casing, a lamp removably mounted in one end of the casing, a spring motor driven drum in the casing, a carrier cable wound on the drum and connected with the lamp, a flexible electric current-conducting wire housed within the casing in the form of a substantially uniform helical coil, and eyelets secured to each convolution of the wire, such eyelets being suspended on the carrier cable between the drum and lamp and being slidable along such cable, one end of the wire being connected with the lamp.

2. A device as in claim 1 with clamping means mounted on the lamp and operable to secure the lamp to objects remote from the casing.

3. A device as in claim 1 in which the casing is divided into two separated compartments, the drum being located in one compartment and the cable extending from the drum into the other compartment, the wire being located in said other compartment.

4. In combination, a casing, a lamp removably mounted in one end of the casing, a spring motor driven drum in the casing, a carrier cable wound on the drum and connected with the lamp, a flexible electric current-conducting wire housed within the casing in the form of a substantially uniform helical coil, and a pair of axially aligned spaced-apart eyelets frictionally engaging each convolution of the wire, the eyelets being connected by a wire deformed outwardly in opposite directions to form opposed, axially aligned loops, the carrier cable projecting through the loops in axial alinement therewith, the loops being slidable relative to the cable, one end of the wire being connected to the lamp.

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