C. REINKER.

SIGNALING DEVICE.

APPLICATION FILED JAN. 28, 1915.

1,231,298. Patented June 26, 1917.

Fig. 1.

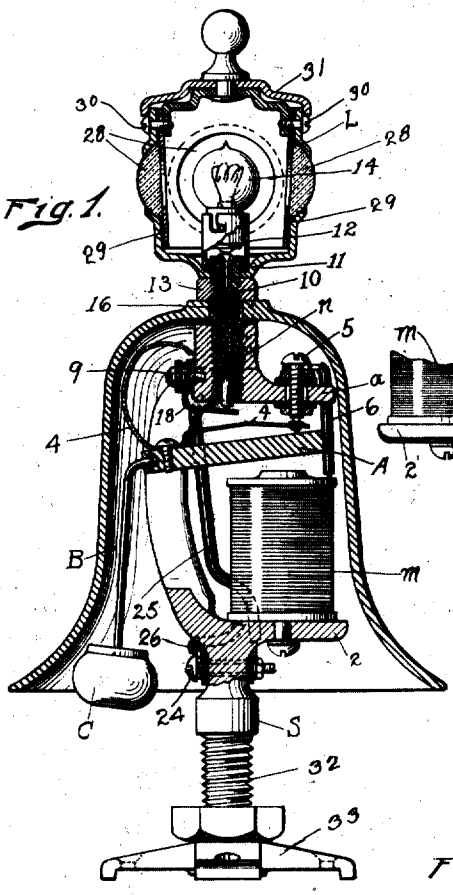


Fig. 2.

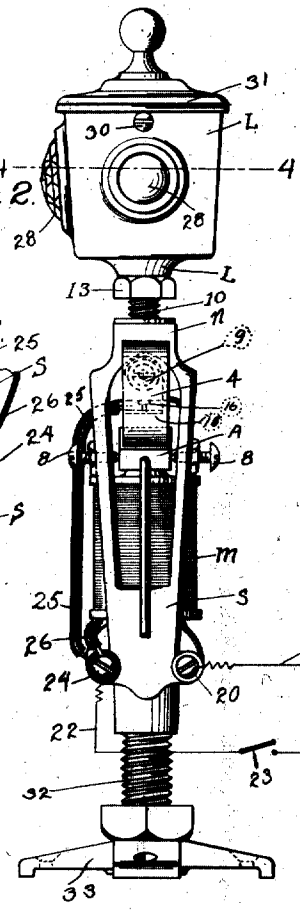


Fig. 3.

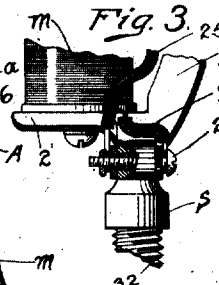
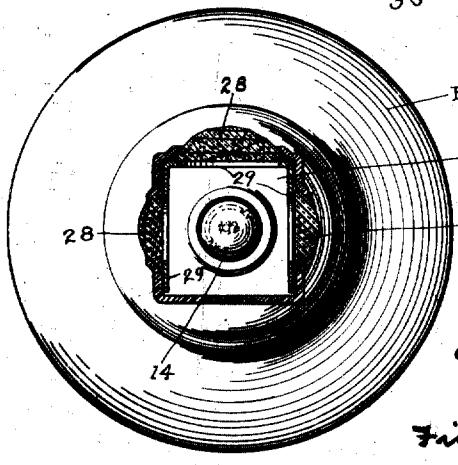


Fig. 4.



WITNESSES:

Geo. E. Kricker.

M. Schwan.

INVENTOR.

CHRISTIAN REINKER.

BY

Fisher & Wilcox

ATTORNEYS

UNITED STATES PATENT OFFICE.

CHRISTIAN REINKER, OF LAKEWOOD, OHIO, ASSIGNOR TO THE LIBERTY BELL COMPANY, OF CLEVELAND, OHIO, A CORPORATION.

SIGNALING DEVICE.

1,231,298. Specification of Letters Patent. **Patented June 26, 1917.**

Application filed January 28, 1915. Serial No. 4,829.

To all whom it may concern:

Be it known that CHRISTIAN REINKER, a citizen of the United States, residing at Lakewood, in the county of Cuyahoga and State of Ohio, has invented certain new and useful Improvements in Signaling Devices, of which the following is a specification.

This invention pertains to a combined electric bell and light for signaling purposes, and the invention is especially adapted to be used on automobiles and other vehicles.

In the accompanying drawings, Figure 1 is a sectional elevation of the invention, and Fig. 2 is a side elevation thereof. Fig. 3 is a sectional detail and Fig. 4 is a cross section and plan on a line corresponding substantially to 4—4, Fig. 2.

In its broadest sense the invention consists in the combination of the bell B with the lamp L located on the top thereof, and constituting a single complete article of manufacture and sale. In detail, the said coöperating parts of the bell and lamp comprise a standard S which serves as a support for both said parts and as a conducting medium in the electric circuit or circuits which go to the bell and the lamp respectively.

To these ends, the said standard has a bracket portion 2 which serves as a rest or support for the electric magnet *m* and at its top the said standard has a vertically positioned neck *n* at the base of which there is a horizontally disposed arm or projection *a* adapted to support an electrical contact screw 5 which is connected by a wire 6 to one end of the magnet winding *m*. Screw 5 is insulated from said arm *a* and contacts at its bottom with a conducting spring strip 4 secured at its opposite end upon the top face of the armature A.

The said armature is sensitively supported between the divided sides of standard S, Fig. 2, by two pivot screws 8 and an extension of said strip 4 is bowed upward and inward to bear against neck *n* whereby the armature is upheld under spring tension. The clapper C for the bell also acts as a counterweight and as a tilting member for the armature, being suspended therefrom at one side of the pivot thereof between the bell and standard. Neck *n* is tubular and threaded internally to receive a tubular coupling screw 10, which has a head 11 engaging the bottom of a socket member 12 for the electric bulb 14. Coupling screw 10 projects down through a bottom opening in the lamp casing L and secures the socket 12, casing L and the bell B firmly on said standard. A lock nut 13 in interposed between said bell and lamp casing. A special electrical conductor 16 suitably insulated extends through screw 10 and contacts at its top with the base of the electric bulb 14, and a conducting strip 18 contacts with the bottom end of conductor 16. Strip 18 is bent upward at one end and fastened by a screw 9 to standard 5. The electric circuit for the lamp or bulb 14 is established by the socket and the coupling tube and the standard and also the wire 19 which connects with the binding screw 20 on the standard and leads to one terminal of the battery 21, the other battery terminal having a wire connection 22 with a switch 23 and with a second binding screw 24 mounted upon but insulated from the standard. The lamp circuit is completed by a wire 25 connecting the screw 24 and the contact strip 18 for the central wire conductor 16 with which the lamp has end contact, see Fig. 1.

The electrical circuit containing the magnet winding *m* also includes the standard S and the wires 19 and 22; and the magnet winding and the lamp are connected in parallel by a separate short wire 26 uniting one end of the magnet winding with the screw 24 and by wire 6 which connects the other end of said winding with the contact screw 5 which has a make and break working relation with the spring 4, thereby creating a vibratory movement of the armature and a continued ringing of the bell while the lamp or bulb is illuminated constantly for the interval of time elected by the closing of the button or switch 23.

The lamp casing L is square in transverse section and provided with one or more white or colored lenses 28 held in place within socket-shaped openings in its side walls by a three-sided plate 29 snugly sleeved within the casing and provided with openings opposite the lenses to permit the light to radiate therethrough. The plate or sleeve 29 is fastened by screws 30 which also secure the cover 31 in place. The standard has a screw-threaded stem 32 at its bottom to support the device upon a bracket 33 or other suitable member or part of an automobile or any other main supporting body.

The tubular screw-threaded member 10 is

in effect a reduced threaded extension of the standard S whereby the lamp casing L may be detachably surmounted upon the bell and the insulated conductor 16 passing through said extension and forming the central contact of the lamp or bulb 14 in the base or bottom of the lamp socket 12 is to all practical purposes and effect an extension of the insulated wire 25. The bowed extension of spring strip 4 merely serves to maintain the armature under spring tension and any equivalent spring means for producing the same result may be used instead without departing from the essentials of the real invention involved herein. The claims are therefore to be construed to cover all such modifications as may be properly regarded as equivalents.

What I claim is:

1. A signaling device, comprising a bell and an electro-magnet having means to ring said bell, and a standard to carry said parts, in combination with an electric lamp surmounting said bell, a tube connecting said lamp and standard, an electrical conductor for the lamp extending through said tube, and a contact member carried by the standard for the lower end of said conductor.

2. In a combined electric bell and lamp, a standard and a bell and electro-magnet mounted thereon, means operated by said electro-magnet to ring said bell, a lamp casing and a lamp socket therein surmounting said bell, a screw-threaded tubular member detachably uniting said casing and socket and bell to said standard an insulated electrical conductor extending from the base of said socket through said tubular member, and a spring contact engaged by said conductor.

3. A signal apparatus comprising a bell, a standard, a tubular stem carried by the standard, the bell being mounted on said stem, a lamp casing connected to the stem, the bell being clamped between the top of the standard and the base of the lamp casing, an electric lamp in the casing, and a conductor for the lamp circuit passing through the aforesaid tubular stem.

4. In a signaling device, a standard, a tubular screw extension at the top of said standard, a bell sleeved over said extension, an electro-magnet and a clapper and spring-pressed armature mounted upon said standard to ring said bell, a binding screw mounted upon the lower portion of said standard and insulated therefrom, a lamp casing secured to said extension above said bell, an electric lamp seated within said casing, an electrical connection for said lamp extending through said tubular extension to said binding screw, an electrical conductor connecting said binding screw and electro-magnet, and a contact for said spring-pressed armature electrically connected with said electro-magnet.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTIAN REINKER.

Witnesses:
R. B. Moser,
M. Schwan.