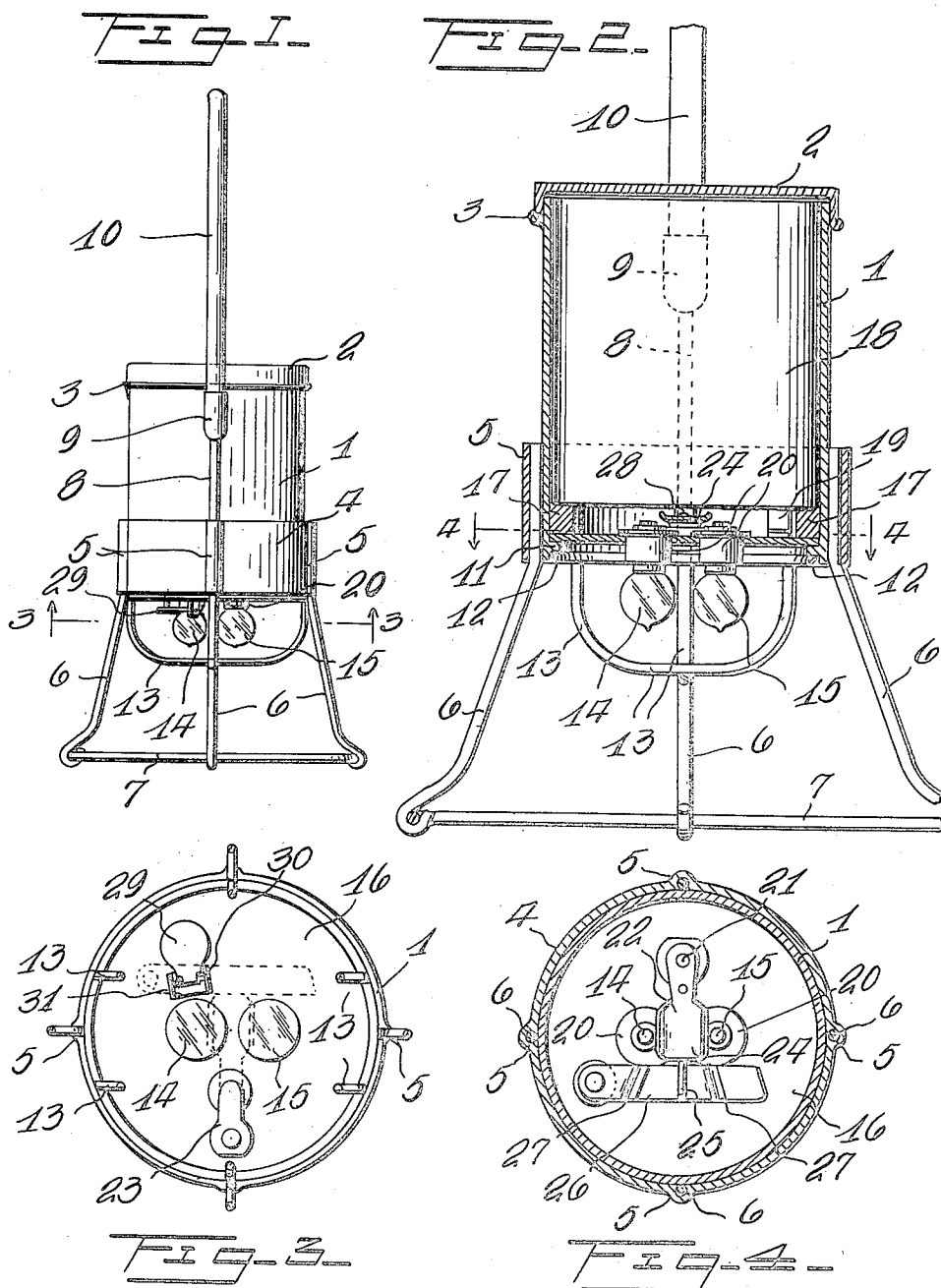


Feb. 6, 1923.

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ELECTRIC LANTERN.
FILED OCT. 12, 1921.

1,444,267.

2 SHEETS—SHEET 1.



Inventor

A. A. Pearson

Witness
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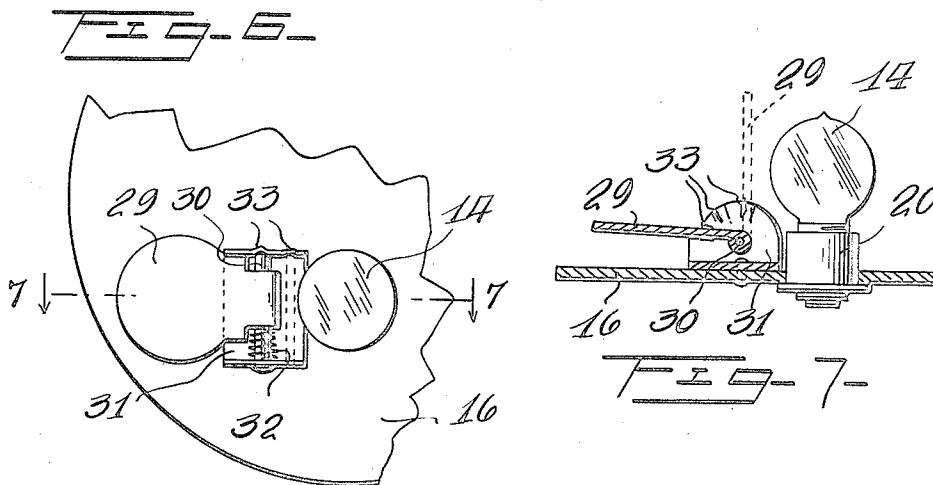
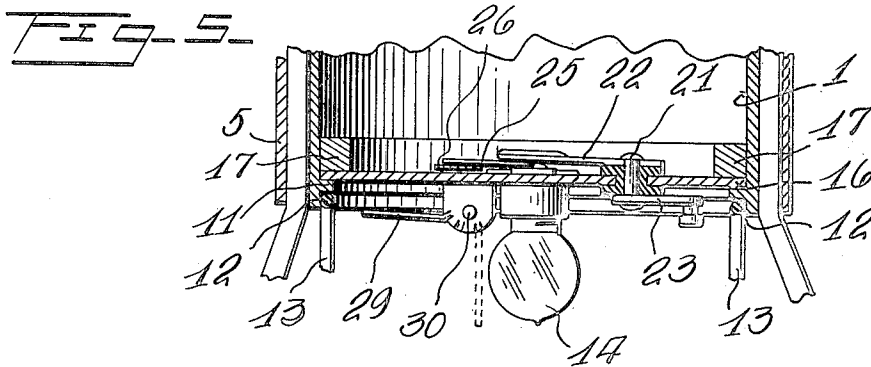
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UNITED STATES PATENT OFFICE.

ALBERT ANSON PEARSON, OF PORTLAND, OREGON.

ELECTRIC LANTERN.

Application filed October 12, 1921. Serial No. 507,290.

To all whom it may concern:

Be it known that I, ALBERT A. PEARSON, citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Electric Lanterns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved electric lantern for use by railroad men and one object of the invention is to provide a lantern which is so constructed that it can be conveniently used for signalling purposes and which can also be conveniently used for throwing a light against the side of a car so that the number of the car or other data can be readily made note of.

Another object of the invention is to provide a lantern having a plurality of bulbs one of which will be preferably white and the second of which will be of some other color and preferably red, improved switch means being provided so that the bulbs may be selectively illuminated.

Another object of the invention is to provide an improved type of switch for selectively illuminating a desired bulb, the switch being so constructed that it can be easily moved into operative engagement with the desired bulb and further so constructed that it will be securely held in the adjusted position and not liable to readily slip out of operative relation to the desired bulb.

Another object of the invention is to provide an improved type of reflector which is adjustably mounted so that it may be moved into position to keep the light out of the eyes of the operator and direct the light against the side of a freight car when making a record of the car numbers.

Another object of the invention is to so construct this lantern that it may be readily carried under one arm or grasped by the handle and carried in a swinging position.

Another object of the invention is to provide a lantern having a casing of an improved construction and carrying a head at one end which will be removably mounted so that the plate or head can be removed when it is desired to make repairs or adjustment to the switch mechanism carried thereby.

This invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a view showing the improved lantern in side elevation.

Figure 2 is an enlarged vertical sectional view through the lantern.

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

Figure 4 is a transverse sectional view taken along the line 4—4 of Fig. 2.

Figure 5 is an enlarged sectional view through the lower portion of the casing with the bulb and switch carrying head in place.

Figure 6 is an enlarged fragmentary view of the bulb carrying plate or head with one of the bulbs and reflector plate shown in place.

Figure 7 is a transverse sectional view taken along the line 7—7 of Fig. 6.

Figure 8 is a perspective view of the switch mechanism, the view being taken looking at the inner face of the casing head.

This improved lantern is provided with a casing 1 of any suitable shape to contain a battery, which is open at its ends and has its upper end closed by a cover 2 hingedly mounted as shown at 3 so that this cover may be swung to an open position when it is desired to insert or remove a battery. A collar 4 is placed about the lower end portion of the casing 1 and at certain points is crimped to provide pockets 5 to receive the rods 6 which constitute supports and have their lower ends connected with a base forming ring 7. Certain of these rods 6 are extended upwardly to provide arms 8 which carry at their upper ends cups or sockets 9 into which will be secured the ends of a U-shaped handle 10, the handle being formed of rigid material so that a firm handle will be provided.

The lower end of the casing is provided with an inwardly extending flange 11 which is spaced from the end of the casing thus providing an annular seat to receive the ring 12 which will be soldered in place. This ring 12 carries U-shaped guard strips 13 in order to protect the bulbs 14 and 15 from being accidentally struck and broken when the lantern is in use. A plate 16 which forms a closure head for the lower end of the casing fits into this casing and rests upon the flange 11 as shown in Fig. 2. This plate carries a gasket 17 formed of rubber and adapted to provide spacing and cushioning

means for the battery 18 which will be placed in the casing with its side terminal 19 engaging the metallic plate 16. Sockets 20 are carried by this plate and will be internally threaded so that the bulbs 14 and 15 can be screwed into these sockets in the usual manner.

In order to permit the lamps or bulbs 14 and 15 to be selectively illuminated, there has been provided a switch including a post or stem 21 which is journaled in the head or plate 16 as shown in Fig. 5 and is provided at its inner end with a bulb engaging arm 22 and at its outer end with an actuating handle 23. The arm 22 is provided with a head 24 which extends beyond the sides of the arm and has its extended side portions bent upwardly as shown in Fig. 2 so that the head may easily move into engagement with either of the bulbs 14 and 15. This arm is formed of resilient material and is provided with a pin extension 25 which rests upon the strip 26 and will be seated in one of the seats or pockets 27 when the arm is in engagement with one of the bulbs. When the switch arm is in the neutral position of Fig. 4, the stem extension will be positioned upon the portion of the strip 26 between the pockets 27 and the switch will be held stationary by friction. By means of this construction, the switch arm 22 is prevented from accidentally moving into engagement with one of the bulbs and will also be prevented from accidentally slipping out of contact with the bulb which it is desired to have illuminated and thus current will be prevented from being wasted and the annoyance of having the bulb extinguished before desired avoided. The central contact 28 of the battery engages the switch and it will be readily seen that when the switch arm is in engagement with one of the bulbs the circuit will be completed and the switch bulb illuminated whereas when the switch arm is in the position shown in Fig. 4, the bulbs will not be illuminated due to the fact that the strip 26 is insulated from the plate or head 16 and the switch is also insulated from the head or plate 16.

When this device is in use, the battery 18 will be placed in the casing with its terminals or contacts 19 and 28 engaging the head or plate 16 and switch. The cover will then be shut and since the battery rests upon the cushion 17, the battery will be held firmly in place when the cover is shut. After the battery is put in place, the switch can be turned by means of the handle 23 to bring the switch arm 22 into engagement with the desired bulb and this bulb will be illuminated. The lantern may be carried by means of the handle and may be used in the ordinary manner for signalling or it may be used when held by the handle to illuminate a roadway and the light will be directed

down upon the roadway. If it is desired to use the lantern for inspecting cars and making notes of the numbers, the lantern will be placed under one arm and when thus held will be extended forwardly and rearwardly of the operator. When used in this manner, the bulb 14 will be illuminated and the white light from this bulb will be directed forwardly of the user. As previously stated, it is desired to prevent the light from shining in the operator's eyes when the lantern is held in this manner and in order to do so, there has been provided a plate 29 which is loosely upon a pin 30 carried by a bracket 31. This plate 29 is slidably as well as rotatably mounted upon this pin 30 and is engaged by a spring 32 so that it will be yieldably held in the position shown in Fig. 6. One of the bearing arms of the bracket 31 is crimped to provide pockets or seats 33 and it will be readily seen that due to the action of the spring 32, the plate will be held in position for extending into the seat as the plate is swung from the position shown in full lines in Fig. 7 toward the position indicated by dotted lines in this figure. The plate can thus be moved to an adjusted position with the plate extending outwardly from the head 16 and will be releasably but securely held in the adjusted position. When in the position indicated by dotted lines, the light will be prevented from shining upwardly into the operator's eyes and he will be able to readily see the numbers upon the freight car.

There has thus been provided a lantern so constructed, that it can be readily used at night for illuminating cars, the light being directed toward the cars but prevented from shining in the eyes of the operator. It will be further noted that the lantern is so constructed that it may be readily used in the ordinary manner of a lantern for signalling and can further be used for directing light upon the ground so that the user can readily see his way around in the dark. It should also be noted that since the head or plate 16 is not soldered or otherwise permanently fastened, it can be easily removed when desired.

I claim:

1. An electric lantern comprising a casing open at its upper and lower ends, a removable cover for the upper end of said casing, a head for the lower end of the casing removably mounted in the casing and closing the lower end, bulb carrying sockets carried by said head, and switch means carried by said head for selectively engaging bulbs mounted in the sockets and closing a circuit from a battery in the casing through a selected bulb to illuminate the bulb.

2. An electric lantern comprising a casing open ended and provided with inwardly extending abutment means adjacent one end,

a removable closure for the other end of said casing, a head of conducting material positioned in said casing and engaging said abutment means, bulb carrying sockets carried by said head, a switch element movably carried by said head for selectively engaging bulbs in the sockets and closing a circuit from a battery in the casing through a selected bulb, the battery having a terminal engaging said switch and a second terminal engaging said head and said switch being operable externally of said head.

3. An electric lantern comprising a casing having a head at one end, bulb carrying means carried by said head, whereby a plurality of bulbs may be mounted with their bases extending through the head, and switch means, said switch means comprising a stem journaled and insulated from said head, an actuating handle carried by the outer end of said stem, a contact arm extending from the inner end of said stem and having its free end portion provided with a head extending beyond the sides of the arm and having its side portions bent to provide cam sections permitting the arm to ride easily into engagement with bulbs, and means for releasably holding the switch in an adjusted position.

4. The structure of claim 3 having a pin extending from the head of said switch arm, and a strip extending across and insulated from the head of said casing and provided with sockets to receive the pin extension of the switch arm, the pin extension engaging said strip between the pockets when the switch arm is in a neutral position.

5. An electric lantern comprising a casing open at one end, abutment means adjacent the open end of said casing, a removable head for said casing fitting into the casing and against the abutment means to close the

open end of the casing, a bulb carrying socket carried by said head, switch means for closing a circuit between a battery in the casing and a bulb mounted in said socket, and a gasket of suitable material positioned in said casing against the inner face of said head to provide a cushion engageable by a battery placed in the casing.

6. An electric lantern comprising a casing having a head at one end and a removable closure at its other end, bulb carrying means carried by said head, switch means carried by the head in operative relation to the bulb carrying means, a collar about said casing having pockets, a support comprising a base member, arms extending from the base member and mounted in said pocket, certain of said arms extending upwardly and having sockets at their upper ends, a handle mounted in the sockets of said arms and extending beyond the other end of said casing.

7. An electric lantern comprising a battery casing having a head at one end and a removable closure for its other end, a bulb carrying socket carried by said head, switch means carried by the head in operative relation to the bulb carrying socket, a bearing bracket carried by said head adjacent the bulb carrying socket and having spaced bearing arms, a pin carried by said arms, a plate pivotally and slidably mounted upon said pin, and spring means upon said pin engaging said plate to yieldably hold the plate in engagement with one of the bearing arms, the last mentioned bearing arm being provided with seats disposed radially of said pin for receiving the plate to releasably hold the plate in a set position.

In testimony whereof I have hereunto set my hand.

ALBERT ANSON PEARSON.