G. H. ROLFES.

RAILROAD LANTERN.

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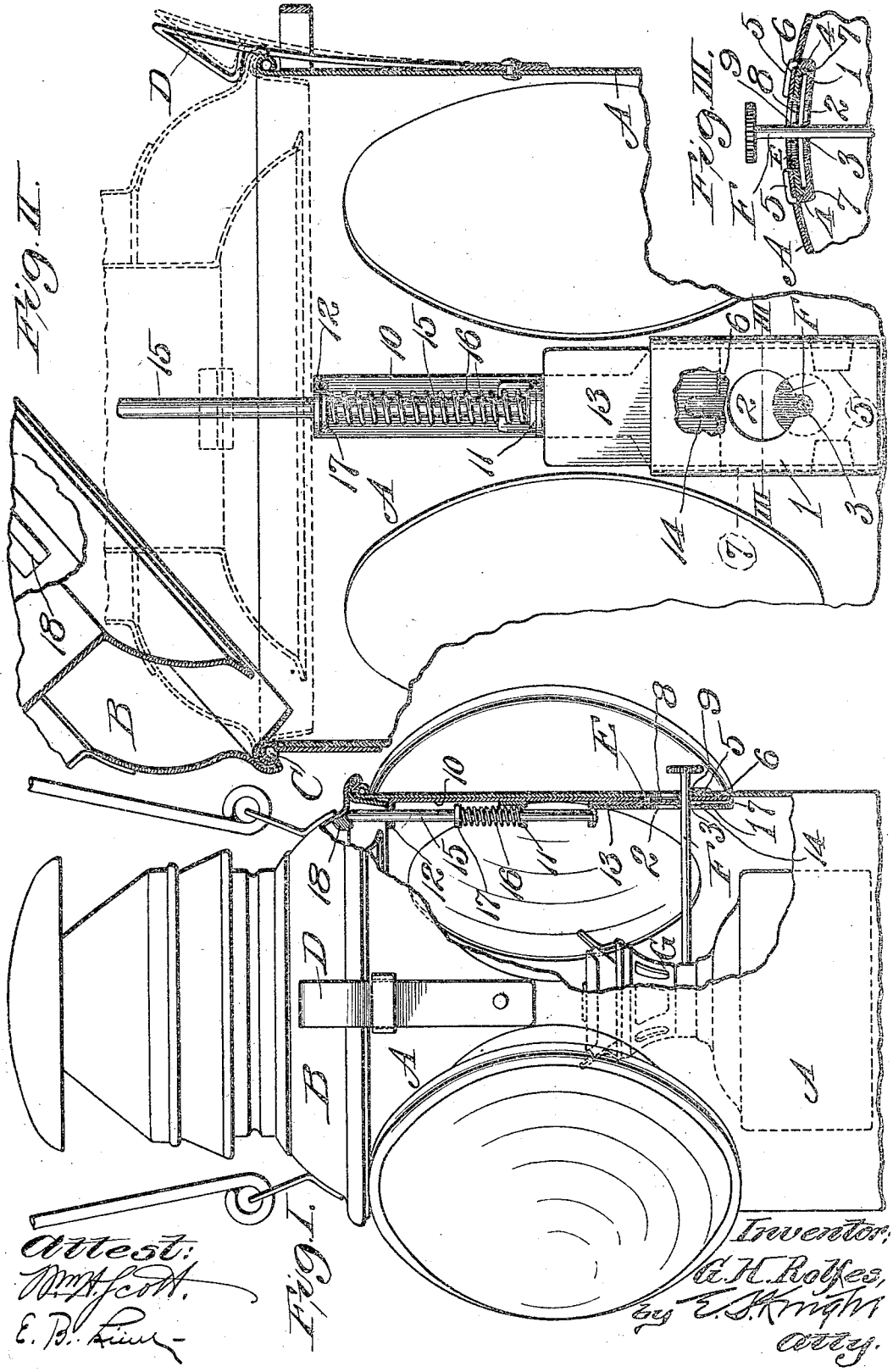
958,319. Patented May 17, 1910.



UNITED STATES PATENT OFFICE.

GEORGE H. ROLFES, OF ST. LOUIS, MISSOURI, ASSIGNOR TO HANDLAN-BUCK MANUFACTURING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION.

RAILROAD-LANTERN.

958,319. Specification of Letters Patent. Patented May 17, 1910.

Application filed July 6, 1909. Serial No. 506,254.

To all whom it may concern:

Be it known that I, GEORGE H. ROLFES, a citizen of the United States of America, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Railroad-Lanterns, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improvement in railroad lanterns, such, for instance, as signal and switch lanterns, and more particularly stated, the improvement relates to an efficient means for closing the aperture in lanterns of the kind named through which the wick raising rod of the lamp burner extends to the exterior of the body of the lantern in order that it may be manipulated to raise and lower the lamp wick.

It has in the past, in the use of railroad lanterns, been a common occurrence and one attended by danger in railroad service that, due to inefficient means for closing the openings through which the wick raising rods extend, drafts of air have found entrance to the interior of the lanterns, with the result of extinguishing the flames therein, a result which it is the object of my invention to entirely eliminate.

Figure I is in part an elevation, and in part a vertical section of a railroad lantern with my improvement incorporated therein. Fig. II is an enlarged vertical section through the lantern shown in Fig. I with my improvement illustrated in elevation and viewed as it is seen at the interior of the lantern. Fig. III is a horizontal section taken on line III—III, Fig. I.

In the accompanying drawings:—A designates the shell or body, and B the hood of a railroad lantern that may be of ordinary construction. The hood is hinged to the shell at C and is adapted to be held in closed position by the spring catch D. In the lantern shell at E is an aperture through which the wick raising rod F of the lamp burner G extends.

1 designates an inner housing plate that is mounted within the lantern shell at the location of the aperture E therein. This housing plate is provided with an orifice 2 that registers with the aperture E in the lantern shell to permit the passage of the knob of the wick raising rod therethrough and at the bottom of said aperture is a notch 3 that is occupied by the wick raising rod when the lantern is in use. The inner housing plate is provided with vertical side flanges 4, (see Fig. III), that rest against the inner face of the lantern shell, and said flanges have formed integral therewith tongues 5 that extend through the lantern shell and are bent over against its outer face for the purpose of holding the inner housing plate to said shell.

6 designates an outer housing plate interposed between the lantern shell and the outer face of the inner housing plate and which is of such dimensions as to fit between the side flanges of the inner housing plate. The outer housing plate is provided with side flanges 7 presented to the outer face of the inner housing plate and which serve to hold the body of the outer housing plate spaced apart from the body of the inner housing plate and provide a channel between these members in which a slide to be hereinafter more particularly mentioned is operable. The outer housing plate is provided with an aperture 8 that is in registration with the aperture in the inner housing plate and the aperture E in the lantern shell, and at the bottom of the aperture in the outer housing plate is a notch 9 that registers with the notch 3 in the inner housing plate. The outer housing plate 6 is provided with a vertical bracket extension 10 that extends upwardly from the plate and is furnished with a lower perforated ear 11 and an upper perforated ear 12, said ears being horizontally disposed and centrally located over the housing plates 1 and 6.

13 designates a slide that is operable between the housing plates 1 and 6. This slide is provided at its lower end with a notch 14 that is adapted to receive the wick raising rod F when the slide is lowered so that the slide will straddle said rod when in its lowered position, at which time it serves to close the apertures in the housing plates and prevent the passage of air therethrough to the interior of the lantern. The slide 13 has fixed to it an operating rod 15 which is operable in the bracket ears 12 and is surrounded by a lift spring 16 located between said ears, and resting at its upper end against a collar 17 fixed to the operating rod. The operating rod is of sufficient length to extend above the top of the lan-

tern shell when said rod and the slide 13 are in elevated positions and the hood of the lantern is elevated to afford access to the interior of the lantern, as seen in Fig. II.

The upper end of the operating rod is adapted to be engaged by the hood of the lantern when said hood is lowered to a closed position, in order that the rod may be depressed against the action of the lift spring 16 to lower the slide 13 to close the apertures in the housing plates 1 and 6.

To provide for the engagement of the lantern rod with the operating rod, the hood of the lantern is preferably supplied with a lug 18. It will be readily perceived that when the lamp to be used in the lantern is to be put in place within the lantern shell while the hood of the lantern is in elevated position, the slide 13 is upheld under the influence of the lift spring 16 and consequently there is a clear passageway through the lantern shell and the housing plates through which the knob of the wick raising rod F may be passed in properly mounting the lamp. Then when the hood of the lantern is lowered, it strikes against the upper end of the operating rod 15 and acts to depress said rod so that the slide 13 is lowered to close the apertures in the housing plates and prevent the passage of air therethrough to the detriment of the flame burning from the lamp burner after the lamp wick has been lighted.

The housing plates made in accordance with my improvement are so constructed and assembled as to afford a highly efficient guard against the passage of air to the interior of the lantern when the slide 13 is in lowered position between these housing plates to close the apertures therein, and the slide being snugly fitted between the housing plates wholly precludes the passage of currents of air through said apertures to the detriment of the flame within the lantern. It is further to be noted that by providing the described means for elevating the aperture closing slide when the hood of the lantern is raised, said slide is automatically lifted and retained in elevated position pending the lowering of the hood, so that the lamp used in the lantern may be readily removed and replaced without any manual manipulation of the slide to elevate it or hold it elevated while the lamp is being taken from the lantern or reseated therein.

I am aware that railroad lanterns have heretofore been provided with slides for closing the apertures through which the wick raising rods extend and that these slides have been housed between single housing plates and the shells of the lanterns. In these constructions it has been found impossible to satisfactorily and efficiently preclude the possibility of the passage of air around the slides to prevent its entrance into the interior of the lanterns, this being due to the difficulty in so mounting the single housing plate and the slide as to provide for the snug operation of the slide between the single housing plate and the lantern shell. By my improvement, which contemplates the use of the two housing plates 1 and 6, between which the slide operates independently of the shell, I am enabled to so construct the two housing plates as to provide for the slide fitting snugly therein and, moreover, the housing plate next adjacent to the lantern shell and fitting closely thereagainst offers a barrier around the aperture in the lantern shell, which prevents the passage of currents of air into the lantern at any point between said shell and the aperture controlling slide.

I claim:

1. The combination in a lantern, comprising a shell having an aperture therein for a wick raising rod and a hood hinged to said shell, of an apertured housing secured to said shell at the location of said aperture, the aperture in said housing registering with the aperture in said shell, a slide operable in said housing to close its aperture, and means for automatically elevating said slide when said hood is elevated.

2. The combination in a lantern, comprising a shell having an aperture therein for a wick raising rod and a hood hinged to said shell, of an apertured housing secured to said shell at the location of the aperture therein, the aperture in said housing registering with the aperture in said shell, and a spring controlled slide operable in said housing to close the aperture therein, adapted to be depressed by said hood when it is moved to a closed position.

3. The combination in a lantern, comprising a shell having an aperture therein for a wick raising rod and a hood hinged to said shell, of an apertured housing secured to said shell at the location of the aperture therein, the aperture in the housing registering with the aperture in said shell, a slide movable vertically in said housing and adapted to close the aperture therein when in a lowered position, an operating rod extending upwardly from said slide, and a spring associated with said operating rod for imparting upward movement to said slide when the lantern hood is elevated.

4. The combination in a lantern, comprising a shell having an aperture therein for a wick raising rod, and a hood hinged to said shell, of an apertured housing plate secured to said shell, a second apertured housing plate interposed between said first named housing plate and said shell and spaced apart from the first named plate, the second housing plate having a vertical bracket extension, a slide operable between said housing plates and adapted to

close the apertures therein, and an operating rod connected to said slide and operable in said bracket extension, the said rod being arranged to be depressed by said hood when the hood is moved to a closed position.

5. The combination in a lantern, comprising a shell having an aperture therein for a wick raising rod, and a hood hinged to said shell, of an apertured housing plate secured to said shell, a second apertured housing plate interposed between said first named housing plate and said shell and spaced apart from the first named plate, the second housing plate having a vertical bracket extension, a slide operable between said housing plates and adapted to close the apertures therein, an operating rod connected to said slide and operable in said bracket extension, and a lift spring associated with said operating rod for elevating said operating rod and slide, the said rod being arranged to be depressed by said hood when the hood is moved to a closed position.

6. The combination in a lantern having a shell provided with an aperture for a wick raising rod, of a double walled apertured housing fitting directly against the lantern shell at the location of said aperture, and an aperture closing slide operable between the walls of said housing.

7. The combination in a lantern, of a shell having an aperture therein for a wick raising rod, of a housing plate fitting directly against said shell and having an aperture in registration with the aperture in said shell, a second housing plate spaced apart from the first named housing plate and connected to said shell, the second housing plate having an aperture in registration with the apertures in said shell and first named housing plate, and an aperture closing slide operable between said housing plates.

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In the presence of—
HOWARD G. COOK,
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