

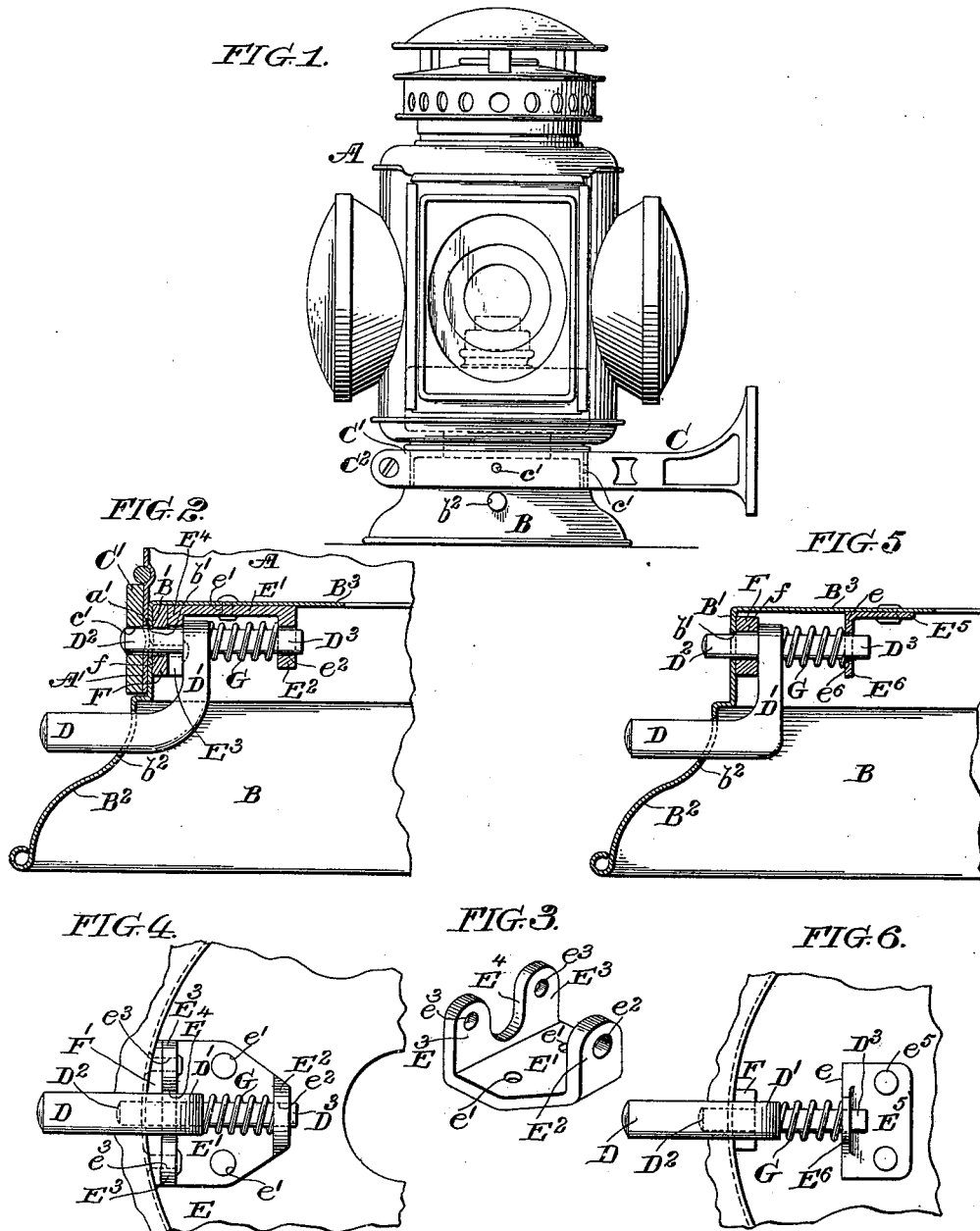
**No. 646,136.**

**Patented Mar. 27, 1900.**

**E. B. SNOW.**  
**LANTERN LATCH.**

(Application filed Sept. 30, 1899.)

(No Model.)



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# UNITED STATES PATENT OFFICE,

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## LANTERN-LATCH.

SPECIFICATION forming part of Letters Patent No. 646,136, dated March 27, 1900.

Application filed September 30, 1899. Serial No. 732,157. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD B. SNOW, a citizen of the United States of America, residing in Altoona, in the county of Blair and State of Pennsylvania, have invented a certain new and useful Improvement in Lantern-Latches, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to the construction of lanterns such as are used in railroading and which are angularly adjustable on their supports, so as to bring different-colored lights into view; and the object of my invention is to provide a simple and efficient latching device by which the lantern can be locked in its various adjustments.

The nature of my improvements will be best understood as described in connection with the drawings, in which they are illustrated, and in which—

Figure 1 is an elevation of the lantern and supporting-bracket upon which it rests and within which it turns. Fig. 2 is a sectional view through the lantern-base and bracket-ring, taken also through the latching device. Fig. 3 is a perspective view of the brace-plate which I prefer to use in connection with my locking mechanism. Fig. 4 is a plan view showing my locking mechanism. Fig. 5 is a sectional view showing a modification of the locking mechanism, and Fig. 6 a plan view of the same modification.

A indicates the lantern; B, the lantern-base, which is generally formed, as indicated, of thin sheet metal, B<sup>3</sup> indicating the top of the base, which is also the bottom of the lantern; B', a cylindrical portion formed immediately below the top B<sup>3</sup>, and B<sup>2</sup> the flaring base of the lantern-bottom.

A' indicates a cylindrical bottom flange of the lantern, which fits upon and is secured to the cylindrical portion B' of the base.

b' a' indicate perforations through the cylindrical portions B' and A', and b<sup>2</sup> indicates a perforation through the portion B<sup>2</sup> of the lantern-base.

C indicates a bracket which supports at its outer end a ring C', which fits around the cylindrical portion A' of the lantern and serves to support the lantern, while permitting it to

turn in the ring. As shown, the ring is formed with an opening and flanges C<sup>2</sup>, through which passes a bolt to secure it in place on the lantern. At suitable points the ring is perforated to form bolt-receiving detents, as indicated at c', these detents lying in the same plane with the perforations b' a' and registering with said perforations in the various angular adjustments of the lantern.

D indicates a push-button extending through the perforation b<sup>2</sup> of the lantern and connected by an upwardly-extending arm D' with a bolt D<sup>2</sup>, provided with a rearward extension, as shown at D<sup>3</sup>. Preferably the bolt and push-button, together with the connecting-arm, are cast in a solid piece. The bearings for the bolt, which is adapted to extend, as shown, through the opening b' a', are formed in a block secured to the cylindrical portion B' of the base and surrounding the opening b', which block may conveniently be a perforated cylinder, as indicated at F, Figs. 2, 5, and 6, said cylinder being soldered or brazed to the cylindrical portion B'. The other bearing is secured to the top piece B<sup>3</sup> of the lantern-base and is situated in the rear of the bearing F, so as to afford a support and guide for the rearward extension D<sup>3</sup> of the bolt. Preferably I form the rear bearing in and as a part of a brace-plate E, having a flat portion E', which lies against and is secured to the top of the base, as by rivets passing through the opening e', two downwardly-extending lugs E<sup>3</sup> E<sup>3</sup>, which are secured to the cylindrical portion B' of the base by rivets passing through the holes e<sup>3</sup>, these lugs having an opening E<sup>4</sup> between them to give free passage to the bolt in putting the structure together. Another backwardly-extending lug E<sup>2</sup> forms the rear bearing for the part which passes through the bearing-perforation e<sup>2</sup>. This special construction of the brace-plate E is found to be important in use, because the lantern-base, being made of thin metal, is more or less liable to bend, while the brace-plate secured both to its cylindrical and top portion prevents bending at this point and insures the proper alinement of the bolt.

In place of using a block F, brazed or soldered to the lantern-base, as described, I have used as the front bearing for the bolt a plate, such as is indicated at F', Fig. 4, this

plate fitting against the lugs  $E^3 E^3$  and also against the cylindrical portion  $B'$  of the base and being secured to the base by the rivets which hold the lugs  $E^3$  to it.

- 5 In the modification shown in Figs. 5 and 6 I show instead of the plate  $E$  a plate  $E^5$ , having perforations  $e^5$ , by which it is riveted to the top plate  $B^3$ , and a downwardly-extending lug  $E^6$ , having a perforation  $e^6$  formed in it to serve as the rear bearing for the bolt.
- 10 This construction has many of the advantages of my preferred construction, notably in the ease with which the apparatus can be put together, but is less advantageous in that it
- 15 does not afford a perfect means for keeping the rear and front bearings for the bolt in alinement.

$G$  indicates a spring acting to thrust the bolt outward.

- 20 In use the bolt portion  $D'$  is thrust out through the perforations  $b'$  and  $a'$  into one of the perforations  $c'$  in the ring  $C'$ , locking the lantern in position in the ring. When it is desired to turn the lantern, it is only necessary to press on the push-button  $D$ , forcing
- 25 the bolt  $D^2$  inward until it disengages itself from the detent  $c'$ , and give the lantern a slight turn. The push-button may then be released and the lantern turned until another
- 30 detent-perforation comes in line with the bolt  $D^2$ , which will immediately be forced out into such perforation, locking the lantern in its new position.

- 35 Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a lantern having a base  $B$  and a ring  $C'$  in which it turns said ring having detents, as  $c'$ , formed in its inner face, a latching-bolt  $D^2 D^3$  working in bearings secured to the bottom of the lantern and in the plane of the detents of the ring, an arm  $D'$  extending down from said bolt below the ring, a laterally-extending push-button  $D$  extending from said arm through the bottom of the lamp a short distance above its

bottom edge and a spring acting to thrust the bolt and push-button outward.

2. In combination with a lantern having a sheet-metal base  $B$  and a ring  $C'$  in which it turns said ring having detents, as  $c'$ , formed in its inner face, a perforated bolt-bearing secured to the side of the sheet-metal base, a second bolt-bearing secured to the base in the rear of the first, a bolt moving in said bearings in the plane of the perforations of the ring, a spring acting to thrust the bolt outward, a downwardly-extending arm secured to the bolt and a laterally-extending push-button extending from said arm through the sheet-metal base a short distance above its bottom edge.

3. In combination with a sheet-metal lantern-base  $B$  having a cylindrical portion  $B'$  and top  $B^3$ , a brace-plate secured to both the cylindrical and top portions of the base and having a bolt-bearing depending from it, an independent bolt-bearing secured to the base in front of the one depending from said plate, a spring-actuated bolt moving in said bearing and a push-button extending through the lower part of the lantern-base and connected to the bolt by an upwardly-extending arm.

4. In combination with a sheet-metal lantern-base  $B$  having a cylindrical portion  $B'$  and top  $B^3$ , a brace-plate  $E$  having separated lugs  $E^3 E^3$  adapted to be secured to the cylindrical portion of the base, a flat portion  $E'$  adapted to be secured to the top of the base and a depending bolt-bearing  $E^2$  lying opposite to the opening between lugs  $E^3 E^3$ , a separate bolt-bearing secured to the side of the base with its opening lying within the space between the lugs  $E^3 E^3$ , a spring-actuated bolt moving in said bearings and a push-button connected to said bolt and extending through the base below its cylindrical portion  $B'$ .

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Witnesses:

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