

United States Patent

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[54] **PORTABLE LIGHT FIXTURE**
5 Claims, 4 Drawing Figs.

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F21v 21/08

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215, 284, 272, 249

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ABSTRACT: A light head mounted on a post a distance above a tubular crossbar of square cross section. The crossbar comprises the outer one of a pair of complementary arm forming members that are telescopically connected and together comprise one of the opposite arms of a C-clamp. The inner arm forming member is also of square cross section and it is releasably securable in either end portion of the outer member to dispose the C-clamp with its bight either crosswise or lengthwise of the post, at either side thereof. The bight of the C-clamp also comprises telescopically connected complementary bight forming members that provide for adjustment of the span of the clamp.

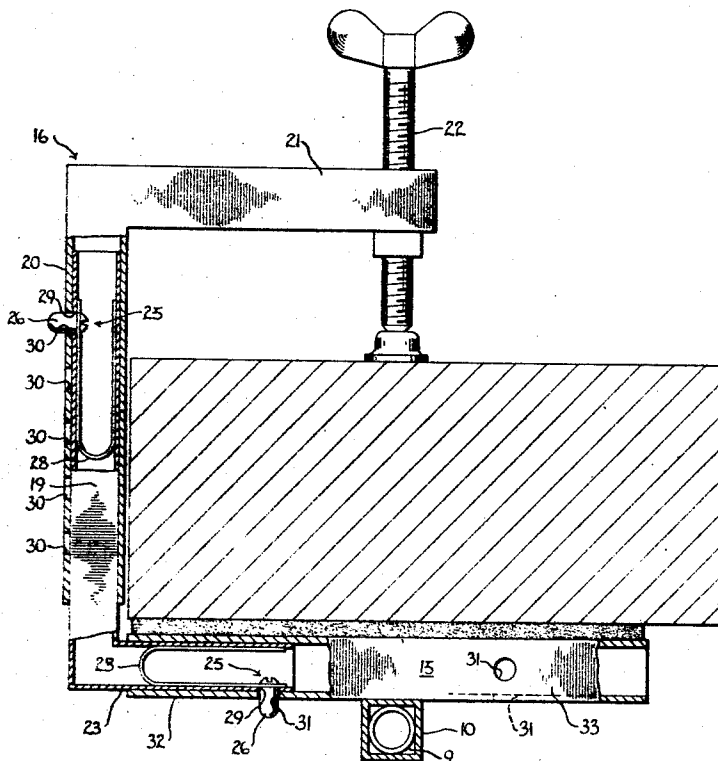


FIG. 1.

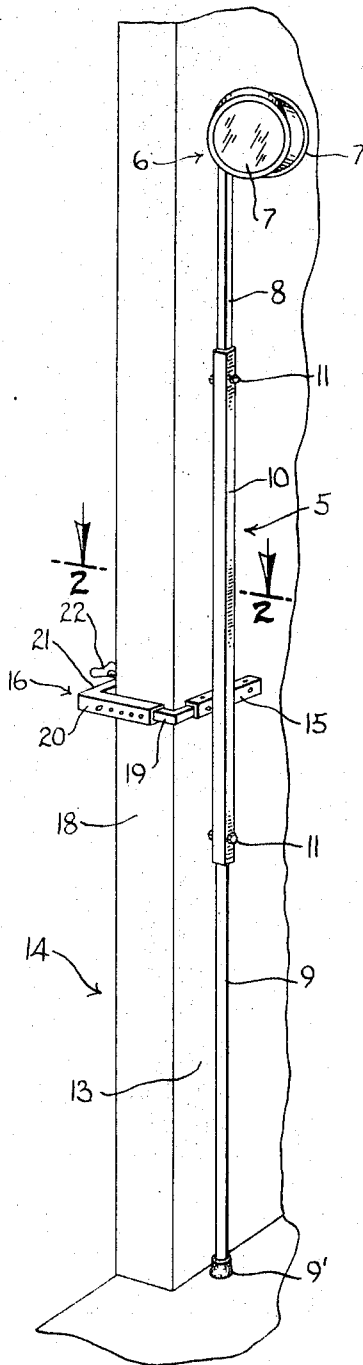
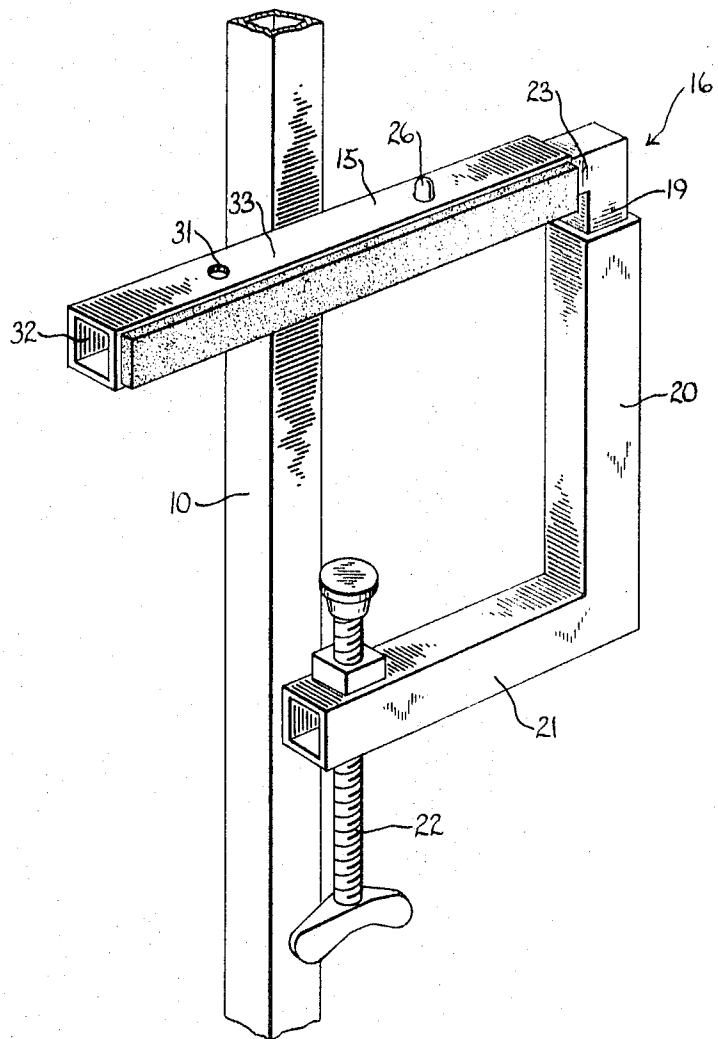
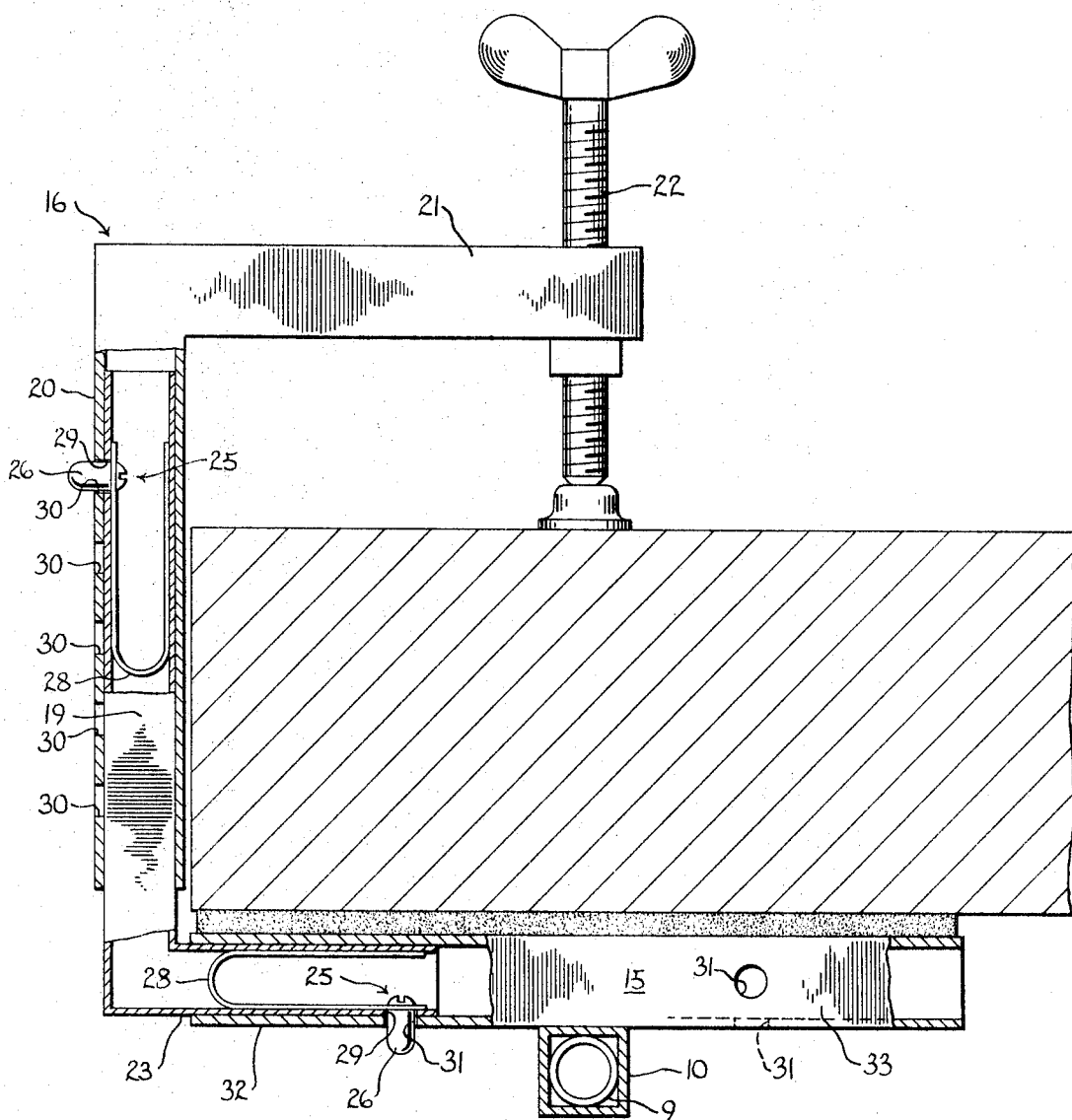


FIG. 4.



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FIG. 2.



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PORTABLE LIGHT FIXTURE

This invention relates to the problem of providing adequate illumination for the interiors of railway boxcars and the like so as to facilitate loading and unloading thereof; and its purpose is to provide an exceptionally efficacious solution to that problem.

Accordingly, it is an object of the invention to provide a lighting instrumentality which features a light head mounted on the top portion of a post that can be readily releasably secured in an upright position along one sidewall of a railway boxcar, in its interior, and at either side of the door opening in said wall.

More specifically, it is an object of the invention to provide a portable light fixture such as described in the preceding object, featuring a dual lamp light head that simultaneously affords illumination for both ends of a boxcar; and further featuring a readily adjustable clamp device that is engageable around the jambs of boxcar doors to releasably clamp the fixture in place against the adjacent wall of the car regardless of variations in thickness of the walls on boxcars of different construction.

With these observations and objects in mind, the manner in which the invention achieves its purpose will be appreciated from the following description and the accompanying drawings. This disclosure is intended merely to exemplify the invention. The invention is not limited to the particular structure or method disclosed, and changes can be made therein which lie within the scope of the appended claims without departing from the invention.

The drawings illustrate one complete example of the physical embodiment of the invention constructed according to the best mode so far devised for the practical application of the principles thereof, and in which:

FIG. 1 is a perspective view of a portable light fixture of this invention, showing the same mounted in a position of use inside a railway boxcar alongside one of its door openings;

FIG. 2 is a detail sectional view, at an enlarged scale, taken on the line 2-2 in FIG. 1;

FIG. 3 is a view similar to FIG. 2, but showing the light fixture mounted at the opposite side of the door opening; and

FIG. 4 is a fragmentary perspective view, at an enlarged scale, showing how the C-clamp can be placed in a convenient storage position with respect to the post.

Referring now more particularly to the accompanying drawings, the numeral 5 generally designates the upright post of a portable light fixture embodying this invention. A light head 6 is mounted on the post, at its top, and it comprises a pair of flood lamps 7 arranged to direct light to opposite sides of the post and at a slight downward angle.

The post 5 is comprised of elongated coaxially arranged top, bottom and center tubular post sections 8, 9 and 10, respectively. The end portions of the center section 10 are telescoped over and detachably secured to the adjacent end portions of the top and bottom post sections by bolts 11. All of these post sections can be of rectangular cross section, preferably square as are the top and center sections 8 and 10, respectively. The center section 10, of course, is slightly larger than the others to have a close sliding fit over their adjacent end portions.

In the present case, the bottom section 9 has been shown as comprised of a length of circular cross section tubing. It provides a leg for the post, and has a rubber crutch tip 9' on its lower extremity. The top section 8 has the light head 6 mounted thereon, as shown.

FIG. 1 best shows how the post 5 can be mounted in an upright position of use in a boxcar at one side of its door opening 14, with a tubular cross bar 15 of a square cross section on the back of its center section 10 engaging the inner surface of the adjacent sidewall 13 of the car to assure that the lamps 7 will be properly oriented to direct light toward the opposite ends of the car. The post can be readily releasably held in that

position of use by a C-clamp generally designated 16. The C-clamp can be secured to the wall 13 of the boxcar with its bight extending substantially horizontally through the door opening 14 directly adjacent to the jamb 18, and with its opposite arms embracing the wall 13 just inwardly of the door opening.

The clamp 16 is of special construction. It is comprised of tubular members of square cross section but of two different sizes so that the smaller tubular members can be telescopically and releasably engaged with the larger tubular members.

Thus, the bight of the clamp comprises complementary inner and outer bight forming members 19 and 20, respectively. The outer member 20 is joined at right angles to that arm 21 of the clamp having the clamp screw 22 threaded therein. The inner member 19 is joined at right angles to an arm forming member 23 of the same small size, and which, together with the crossbar 15, provides the other arm of the clamp. It will be understood, of course, that the crossbar 15 has the same size as the outer bight member 20 and the screw mounting arm 21.

With the construction described, the bight forming members 19 and 20 are relatively axially slidable to vary the span of the clamp, and they can be readily releasably held in any of a number of different positions of adjustment by a latch 25 to be described later.

The complementary arm forming members 15 and 23 are also relatively axially slidable and releasably held against such sliding motion by another latch 25. However, they are so connected for a different purpose, namely, to enable the inner arm member to be axially displaced from and/or connected in either end of the outer member 15. Accordingly, it will be seen that the clamp can be placed in either of two operative positions of use with its bight disposed at one side or the other of the post 5 and crosswise thereof, whereby the clamp can be secured to the wall 13 at either side of the door opening. This is suggested by FIGS. 2 and 3, where it will be noted that the two operative positions of the clamp are displaced 180° apart about the axis of its bight.

In addition, the displaceability of the inner arm forming member 23 from the crossbar 15 and the square shape thereof enables the inner arm member to be engaged in either end portion of the crossbar with the inner arm in either of two positions displaced 90° from one another about the longitudinal axis of said arm member. This enables the light fixture to be stored most conveniently with its clamp in an out of the way position at which its bight extends lengthwise of the post, as seen in FIG. 4.

The joining inner arm and bight forming members 19 and 23 are readily releasably held in any of the above-described positions by means of the latch devices 25 mentioned previously. One of these is mounted in the outer end portion of each of said members, and each comprises a pin 26, and a U-shaped spring 28 having the pin secured to one leg thereof. The opposite legs of each spring bear flatwise and frictionally against two opposite walls of the inner member so as to enable the latch device to be held in place without fasteners of any kind.

Each spring yieldingly holds its pin 26 projected outwardly through a hole 29 in the inner member. The pin on the bight forming member 19 is selectively and releasably engageable in any one of a number of axially spaced holes 30 in the outer bight member 20, to enable the span of the clamp to be adjusted to a dimension slightly greater than the thickness of the wall to which the light fixture is to be clamped.

Similarly, the pin 26 on the inner arm forming member 23 is normally held projected outwardly through its hole 29 and engaged in any one of four holes 31 in the arm forming crossbar 15. Two of these holes are in the front wall 32 of the crossbar, near the opposite ends of the bar and spaced equal distances therefrom; and these are the ones in which the pin 26 can engage to hold the clamp in either of its two operative positions seen in FIGS. 2 and 3. The other two holes 31 are similarly located in the top wall 33 of the crossbar, and provide for

mounting the clamp in an inactive or storage position such as seen in FIG. 4.

With the light fixture disposed inside a boxcar, alongside its door opening as shown in FIG. 1, the clamp screw 22 must be brought to bear against the exterior of the wall 13 in order to draw the crossbar or outer arm member 15 of the clamp firmly against the inner surface of the wall for stable mounting of the fixture relative thereto. FIG. 2 illustrates this positioning of the clamp at the right-hand side of the door opening, and with the bight of the clamp adjusted for minimum span for a wall 13 of small thickness.

FIG. 3 not only illustrates the clamp disposed at the left-hand side of the door opening, but also shows how the span of the clamp must be increased by adjustment of its bight, when the wall of the boxcar is thicker.

From the foregoing description, together with the accompanying drawings, it will be readily apparent to those skilled in the art that this invention provides an exceptionally efficacious solution to the problem of illuminating the interiors of railway boxcars.

What we claim as our invention is:

1. A portable light fixture of the type comprising a light head, and further characterized by:
 - A. an elongated member on which the light head is mounted;
 - B. means to support said elongated member in an upright position along a wall adjacent to a door opening therein, comprising a C-clamp which can be secured to the wall with its bight extending substantially horizontally through the door opening, and with the clamp arms embracing portions of the wall adjacent to the opening;
 - C. one arm of the clamp comprising complementary telescopically engaged inner and outer arm members, the latter of which is mounted crosswise on said elongated member and the former of which is connected with the bight of the clamp, said complementary arm members being square in cross section and being axially separable and reengageable to enable the clamp to be disposed in either of two positions displaced 90° apart about the axis of said one arm, one of said positions being a storage position at which the bight of the clamp is disposed substantially vertically and lengthwise of said elongated member; and
 - D. cooperating means on said arm members readily releasably holding the clamp in either of said two positions.
2. A portable light fixture of the type comprising a light head, and further characterized by:
 - A. an elongated member upon which the light head is mounted;
 - B. means to support said elongated member in an upright position along a wall adjacent to a door opening therein, comprising a C-clamp the arms of which can be embracingly secured to the wall adjacent to the door opening with its bight extending substantially horizontally therethrough; and
 - C. one arm of the clamp comprising

1. a pair of elongated cooperating arm members mounted one on the clamp and the other crosswise on said elongated member, and
2. arm connecting means providing for separably connecting said arm members together with the clamp carried arm member in either of two positions displaced 90° from one another about its longitudinal axis.
3. The portable light fixture of claim 2 wherein said arm connecting means further provides for connecting said arm members together with the clamp in either of two positions displaced 180° apart about the axis of the bight of the C-clamp, to enable the bight of the clamp to be located at either side of said upright member.
4. The portable light fixture of claim 2 further characterized by:
 - A. the bight of the clamp comprising cooperating elongated bight members which are movable lengthwise relative to one another to adjust the span of the clamp arms; and
 - B. cooperating means on said bight members to releasably hold them in different positions of adjustment.
5. A portable light fixture of the type comprising a light head, and further characterized by:
 - A. an elongated member on which the light head is mounted;
 - B. means to support said elongated member in an upright position along a wall adjacent to a door opening therein, comprising a C-clamp which can be secured to the wall with its bight extending substantially horizontally through the door opening, and with its arms embracing portions of the wall adjacent to the opening;
 - C. one arm of the clamp comprising complementary telescopically engaged inner and outer arm members one connecting with the bight of the clamp and the other mounted crosswise on the elongated member, the bight connected arm member being telescopically engageable with either end portion of said arm which is mounted on the elongated member so as to enable the clamp to be disposed with its bight at either side of said elongated member, said complementary arm members being square in cross section so as to enable telescopic engagement thereof with the clamp in either of two positions displaced 90° apart about the axis of said arm which is mounted on the elongated member, and in one of which positions the bight of the clamp is disposed vertically, lengthwise of said elongated member;
 - D. cooperating means on said arm members readily releasably holding the bight connected arm member telescopically engaged with either end portion of the other arm member;
 - E. the bight of the clamp comprising complementary telescopically connected bight members which can be adjusted lengthwise of one another to vary the span of the clamp; and
 - F. cooperating means on said complementary bight members to releasably hold the same in different positions of lengthwise adjustment.