United States Patent

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[54] **LANTERN**
7 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** ..... **240/11.2 R,** 240/11.4 R, 240/25
[51] **Int. Cl.** **F21 7/00**
[50] **Field of Search** 240/11.2, 11.4, 25; 220/4

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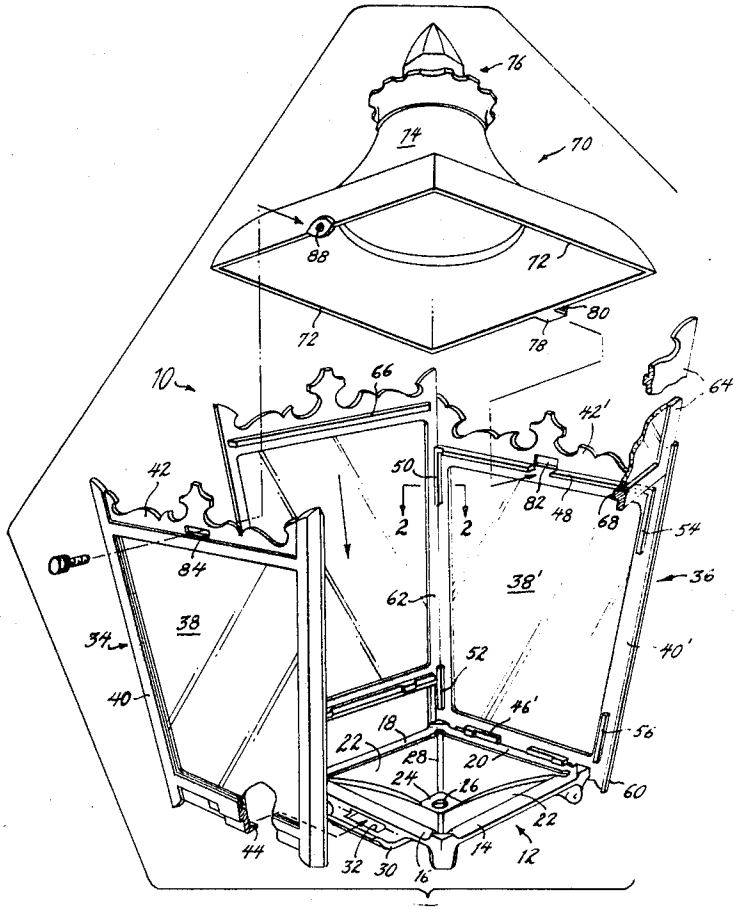
ABSTRACT: A lantern comprised of discrete side panels removably interconnected with each other and removably coupled to a base and roof are disclosed. Two of the side panels are each coupled to the roof and base. The remaining side panels are coupled only to the first-mentioned side panels.



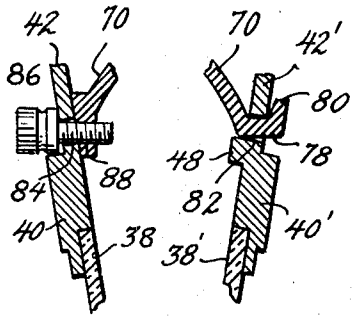


Fig. 3. Fig. 4.

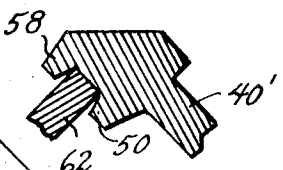


Fig. 2.

Fig. 1.

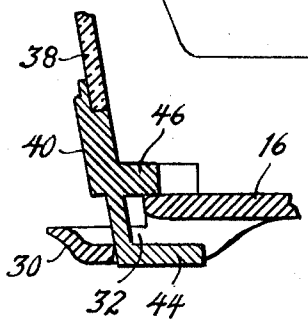


Fig. 5.

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LANTERN

The present invention is directed to a lantern and a method of making the same. The lantern is constructed in a manner whereby a first set of side panels are removably coupled to a base and a roof. A second set of side panels are coupled to the first set of side panels. The second set of side panels are not connected to the roof or base. The entire lantern is maintained in assembled condition using only one bolt and no screws.

Lanterns in accordance with the present invention are capable of being made inexpensively and assembled rapidly. The structural interrelationship of the components of the lantern permit rapid disassembly and maintenance on the fixture.

It is an object of the present invention to provide a novel lantern and method of assembling same.

It is another object of the present invention to provide a novel lantern having a first set of oppositely disposed panels removably coupled to a base and roof with a second set of side panels removably coupled to the first set of side panels.

It is another object of the present invention to provide a lantern structurally interrelated in a manner so as to require only one bolt and no screws to maintain the same in an assembled relationship.

It is another object of the present invention to provide a novel method for assembling lanterns.

Other objects will appear hereinafter.

For the purpose of illustrating the invention, there is shown in the drawings a form which is presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

FIG. 1 is an exploded view of the lantern of the present invention in partial assembled condition.

FIG. 2 is a sectional view taken along the line 2—2 in FIG. 1.

FIG. 3 is a sectional view through one side panel and roof to show the only bolt used in maintaining the lantern assembled.

FIG. 4 is a sectional view through one side panel and a portion of the roof to show the interconnection between the same.

FIG. 5 is a sectional view through a portion of the base of one side panel to show the interconnection between the same.

Referring to the drawing in detail, wherein like numerals indicate like elements, there is shown in FIG. 1 a lantern in accordance with the present invention designated generally as **10** The lantern **10** includes a base **12** having sides **14**, **16**, **18** and **20** interconnected with each other and having depending ornamentation at their corners.

The sides of the base are connected to arcuate truncated bottom panels **22** which extend to a rectangular bottom wall **24**. Wall **24** is provided with an axially disposed hole **26** through which electrical wires and mounting structure for the lamp or a gas burning nozzle may be disposed. The intersection of adjacent bottom panels **22** is defined by grooves **28**.

Sides **16** and **20** of the base **12** are each provided with an outwardly extending projection **30** having an elongated slot **32** therethrough. The slot **32** extends generally parallel to the sides **16** and **20**. The entire base **12** may be cast of aluminum, bronze, brass, etc. in one piece.

A first set of side panels **34** and **36** are provided. The side panels **34** and **36** are identical except as will be pointed out hereinafter. Hence, corresponding primed numerals are provided on one of these panels for the structural features thereof. Side panel **34** includes a cast metal frame **40** having a pane of glass **38** supported thereby. Each of frames **40** and **40'** are provided with a downwardly and inwardly extending tongue **44** adapted to extend through the slot **32** on the respective sides **16** and **20**, respectively, of the base **12**.

Limit stops **46** and **46'** are provided on the frames **40** and **40'**, respectively, for overlying the upper surface of the sides **16** and **20** of the base **12**. A ledge **48** is provided adjacent the upper edge of the frame **40'**. No ledge is provided on the frame **40** corresponding to ledge **48**. Each of the frames **40** and **40'** are provided with ornamentation **42** and **42'**, respectively, along their upper edges. Integral guides **50** and **52** are provided adjacent to and spaced from angled edge **58** along the vertically extending side portion of frame **40'**. Along the other vertically extending side portion of frame **40'**, there are provided corresponding guides **54** and **56** parallel to but spaced from the angled edge **60**. Corresponding guides and angled edges are provided along the inner surface of the frame **40**.

A second set of side panels having frames **62** an **64** are provided. The second set of side panels are shown in different stages of assembly. Each of the frames **62** and **64** are constructed in a manner so as to support a pane of glass and have ornamentation at their upper edge corresponding to ornamentation **42**. Each of frames **62** and **64** are provided with a ledge **66** adjacent the upper end thereof. The ledges **66** are adapted to be in the same plane as the ledge **48** and cooperate therewith to facilitate support of a roof. Each of frames **62** and **64** is provided with a limit stop **68** adapted to overlie one of the sides of the base **12** in the assembled position of the side panels so that the ledges **48** and **66** will be in the same plane.

There is provided a roof designated generally as **70**. The roof **70** is provided with a cross section corresponding generally to the cross section of the cage defined by the side panels. Hence, roof **70** at its lower periphery is provided with a rectangular surface **72** adapted to be supported by the ledges **48** and **66**. Roof **70** curves upwardly and inwardly from the surface **72** and then merges into a truncated cone **74** having ornamentation **76** at the top thereof.

At the same elevation of the surface **72**, the roof **70** is provided with a tongue **78** having a tip **80** at its terminal end. The tongue **78** is adapted to extend through the slot **82** in the ornamentation **42'**. The lower edge of slot **82** coincides with the upper surface on ledge **48**. The relationship of tongue **78** and slot **82** facilitates pivoting the roof **70**.

The ornamentation **42** on frame **40** is provided with a slot **84** through which a threaded bolt **86** is adapted to extend. Directly opposite the tongue **78**, the roof is provided with a flat portion having a threaded hole **88** adapted to receive the bolt **86**. See FIG. 3.

The lantern **10** is assembled as follows:

A base **12** is placed on any supporting surface such as a table. The first set of side panels **34** and **36** are releasably interconnected with the base by inserting the tongues **44** into the slots **32**. Such insertion is accomplished one at a time by tilting the panels so as to insert the tongue and straightening the panels so as to be upright. Thereafter, the second set of said panels is placed in position.

To place the side panel having frame **62** in position, it is held at an elevation above the side panels **34** and **36** aligned with guide slots on each of said side panels. Frame **66** is slit downwardly into the channel defined by angled edges on the frames **40** and **40'** and the mating guides such as guides **50** and **52**, until the limit stop **68** contacts the upper surface of side **18** on the base **12**. Frame **62** is not interconnected with the base **12**. Frame **62** is likewise slid downwardly through the guide channel on the opposite side of the lantern and defined by angled edges and guides on the side panels **34** and **36**.

Thereafter, the roof **70** is held in a tilted position so that tongue **78** may extend through slot **82**. The roof is tilted while the tongue is entering the slot and rests on the ledges **48** and **66**. Thereafter, the bolt **86** is extended through slot **84** and threaded into the hole **88**. In this simple manner, the lantern is completely assembled and maintained in an assembled relationship with only one bolt and no screws. Disassembly may be accomplished in the reverse manner.

It will be noted that the second set of side panels comprised of frames **62** and **64** are not interconnected with the roof or the base. Also, it will be noted that the frames **62** and **64** are clamped between the roof and base. By using aluminum castings for all of the base, frames and roof, manufacturing and assembly of the lantern is substantially simplified.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes

thereof and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention.

It is claimed:

1. A lantern comprising a cage defined by first and second sets of said panels, a base, the first set of panels being removably connected adjacent their lower end to the base, said second set of panels being slidably received in a channel on the panels of said first set, an inwardly extending ledge on the inner surface of the panels of the second set, a roof supported on said ledges, one side of said roof being removably interconnected with one panel of said first set, and a threaded member coupling the other panel of said first set to said roof.

2. A lantern in accordance with claim 1 wherein the panels of said second set rest on a surface of said base, the first set of panels being the only panels removably interconnected with said base, said cage being rectangular with the panels of said first set being generally perpendicular to the panels of the second set, and said roof being supported in part by a ledge on one panel of said first set.

3. A lantern in accordance with claim 1 wherein said channels are defined by an angled edge on the panels of the first set and a pair of spaced projections on the panels of the first set parallel to its adjacent angled edge.

4. A lantern in accordance with claim 1 wherein said roof is interconnected with said one panel of said first set by means of a tongue and slot arrangement, said first set of panels being removably connected to said base by means of a tongue and slot arrangement.

5. A lantern in accordance with claim 1 wherein said base and panels are cast aluminum, and transparent windows supported by said panels.

6. A lantern comprising a cage defined by first and second sets of side panels, a base, the first set of panels being removably connected adjacent their lower end to the base, said second set of panels being slidably received in a channel on the panels of said first set, a ledge on the inner surface of said panels of the second set, a roof supported on said ledges, one side of said roof being interconnected with one panel of said first set by means of a tongue on the roof and a slot on said one panel, and a threaded member coupling the other panel of said first set to said roof.

7. A lantern comprising a cage defined by first and second sets of side panels, a base, the first set of panels being removably connected adjacent their lower end to the base by means of tongue on the panels of said first set adapted to enter elongated slots on opposite sides of said base, said second set of panels being slidably received in a channel on the panels of said first set, a ledge on the inner surface of said panels of the second set, a roof supported on said ledges, one side of said roof being interconnected with one panel of said first set, and a bolt coupling the other panel of said first set to said roof.