H. BARKSCHAT.

LANTERN CONSTRUCTION.

APPLICATION FILED MAR. 1, 1920.

1,421,058. **Patented June 27, 1922.**

Fig. 1.

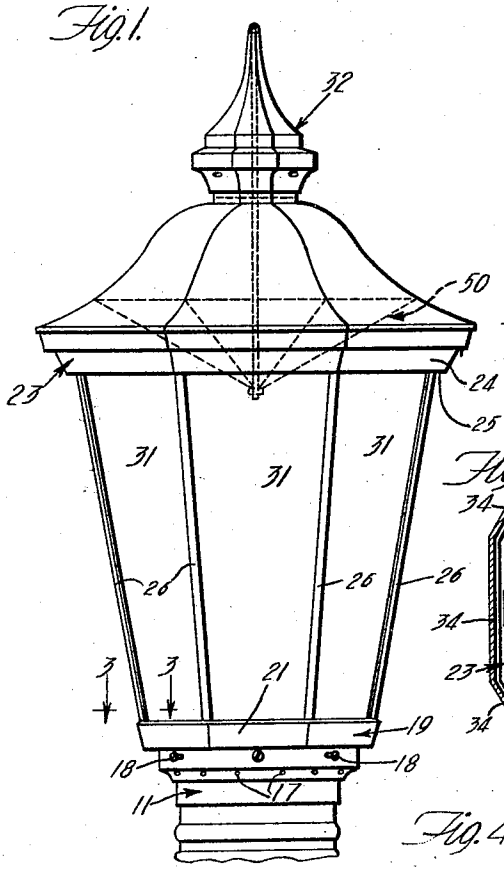


Fig. 2.

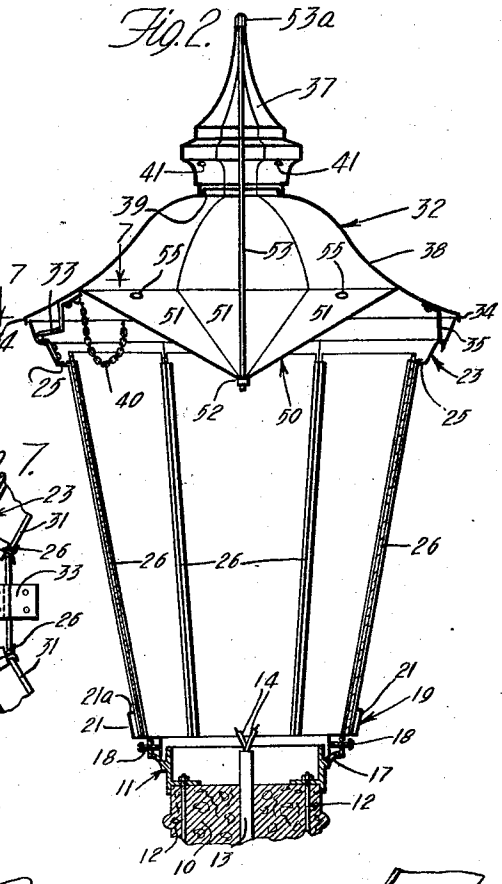


Fig. 7.

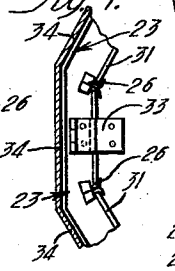


Fig. 4.

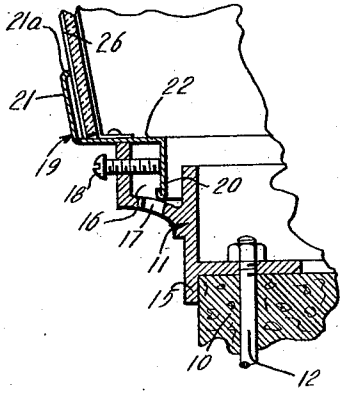


Fig. 3.

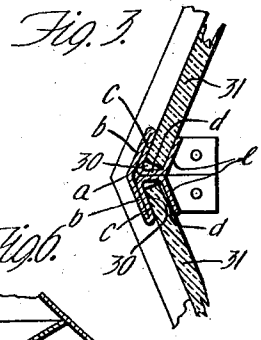


Fig. 6.

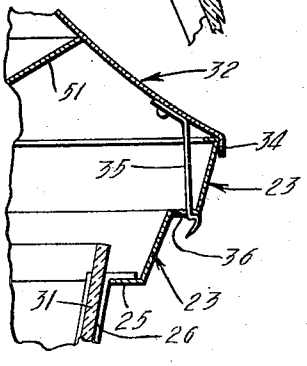
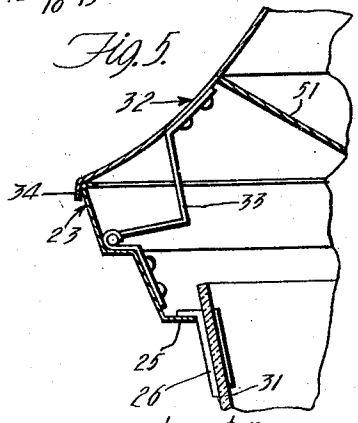


Fig. 5.



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UNITED STATES PATENT OFFICE.

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LANTERN CONSTRUCTION.

1,421,058. Specification of Letters Patent. **Patented June 27, 1922.**

Application filed March 1, 1920. Serial No. 362,529.

To all whom it may concern:

Be it known that I, HENRY BARKSCHAT, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented new and useful Improvements in Lantern Constructions, of which the following is a specification.

The present invention relates to improvements in lantern constructions and it is an object of the invention to provide a simple, inexpensive and sightly lantern.

The invention provides a lantern that is particularly adapted for use in connection with ornamental posts such as are used in street illumination and the like. It will be understood however, that the invention is not limited to this particular use but may be used wherever a lantern of this character is required.

A particular feature of the invention is the ease with which the lantern may be opened, and still provide a weather proof structure. Heretofore lanterns of this general character have been so constructed as to require loosening or complete removal of parts in order to open them. The present invention provides a lantern, the top of which may be swung open very easily and quickly. If the opening of the top is not sufficient the glass plates which form the sides of the lantern may be easily removed. The removal of the glass plates merely necessitates lifting them out of the guides in which they were held. The construction of the lantern is such that it is not necessary to connect or fasten the glass plates in order to prevent them from becoming displaced. These features of the invention are considered important as they make the light or lights within the lantern easily accessible when it is necessary to clean, repair or replace them. It will be readily understood that in cases where there are several hundred units to be kept in good condition this feature becomes very important, effecting a great saving in time and labor.

A further feature of the lantern is its simplicity of construction. The entire lantern, exclusive of the glass plates which form the sides, is formed of sheet metal. The various parts are so shaped and arranged as to make the assembling of the lantern very simple. Each individual part of the lantern is designed in such a manner as to make its manufacture simple and inexpensive. This simplicity of parts and assembling makes the lantern simple and inexpensive.

Suitable vents are provided in the lantern to allow the heat that is generated by the lights within the lantern to escape. Suitable means is also provided in the lantern for draining out water of condensation which may be deposited in the lantern.

The further features of the invention as well as its construction will be readily understood from the following detailed description of a specific preferred form of the invention throughout which reference is had to the accompanying drawings, in which—

Fig. 1 is a side elevation of the lantern; Fig. 2 is a vertical section through the lantern; Fig. 3 is an enlarged detailed section taken as indicated by line 3—3 on Fig. 1, showing the manner in which the glass plates are carried; Fig. 4 is an enlarged detailed section showing the construction of the bottom of the lantern and a typical mounting for the lantern; Fig. 5 is an enlarged detailed section showing the manner in which the top is hinged; Fig. 6 is an enlarged detailed section showing the catch which holds the top in position; and Fig. 7 is a detailed section taken as indicated by line 7—7 on Fig. 2.

Throughout the drawings numeral 10 designates the top of a typical post on which is mounted a bracket 11. The bracket 11 is fastened to the post 10 by means of studs or reinforcing rods 12 which are embedded in the post. Extending from the center of the post 10 there is a conduit 13 which carries wires 14. Any suitable arrangement of lights may be mounted within the lantern and supplied with current through wires 14.

Although the bracket 11 is physically independent of the lantern itself, the form of bracket shown in the drawings is particularly adapted for use in connection with the lantern. The lower part 15 of the bracket is made to fit over the top of the post 10 thereby making a firm and sightly mounting. The top part of the bracket 11 is shaped so as to form an annular groove 16 as shown in Figs. 2 and 4. In the bottom of the groove 16 there are water drain and ventilating apertures 17 and extending inwardly through the outer wall of the groove are set screws 18.

The base 19 of the lantern is carried by

bracket 11. The base 19 has a flange like circular portion 20 and an octagonally shaped portion 21. The portions 20 and 21 of the base are connected by horizontal portions 22. The base 19 is so shaped that the portion 22 bears upon the top of the outer wall of bracket 11 and the circular portion 20 extends downward into the groove 16. The set screws 18 which extend through the outer wall of the bracket engage the circular portion 20 of the base and hold it firmly in place. The portion 21 of the base flares slightly toward its upper end, as shown in Figs. 1, 2 and 4. Extending inwardly from the top of portion 21 there is a small flange 21^a which greatly stiffens the base.

The top frame 23 of the lantern is an octagonally shaped member somewhat larger than the base 19. Extending inwardly from the side wall 24 of the frame 23 is a flange 25. Attached to portion 21 of base 19 in the corners of the octagonal portion are corner pieces 26. The corner pieces 26 extend diagonally upwardly and connect to flange 25, which extends inwardly from the bottom of wall 24, in the corners of the octagonal frame 23. The corner pieces 26 may be attached to the base 19 and the frame 23 in any suitable manner, I may prefer to solder or braze the corner pieces to the frame 23, and rivet them to the base 19 as shown in the drawings. There is a corner piece 26 extending from each of the corners of the base to the corresponding corner of the frame 23 thereby causing the frame 26 to be firmly supported above the base.

The corner pieces 26 are formed from single strips of sheet metal and are so shaped as to form grooves 30 in which glass plates 31 may be carried. The corner pieces are particularly strong and rigid due to their shape. The shape of the corner pieces 26 is clearly shown in Fig. 3. The grooves 30 are open at the top and allow the glass plates 31 to be slid downwardly into them. The glass plates 31 are shaped as shown in Fig. 1, being narrower at the bottom than at the top. The plates fit neatly between adjacent corner pieces 26 and extend between the base 19 and the frame 23. The lower edges of the plates rest upon the portion 22 while the upper edges extend slightly above flange 25. The corner pieces 26 are set into flanges 21^a and 25 so as to allow the edges of the flange to engage the glass plates, as shown in Figs. 3 and 6. The grooves 30 in the corner pieces 26 are made of such size as to allow the glass to be easily slid into the lamp or removed, at the same time holding it firmly enough to prevent rattling. The corner pieces 26 are bent on a longitudinal line *a* and have parts *b* which extend outwardly at the same angle as the sides of the base and the upper frame. The parts *c* are then bent back against parts *b* and parts *c* meet at the center. Parts *d* together extend inwardly. And parts *e* extend from parts *d* at the same angle as parts *b* and *c*, forming the grooves in which the glasses are held.

A top 32 is connected to the top frame 23 by means of a hinge 33. The top 32 is of the same shape as the frame 23 and is slightly larger than said frame. The top has a downwardly extending flange 34 which fits over the top of the frame 23. The hinge 33 is so shaped and connects the frame and top in such a manner as to allow the top to be swung open. The arrangement and shape of the hinge is clearly shown in Fig. 5. Attached to the top 32 directly opposite the hinge 33 there is a spring catch 35. The catch 35 extends through an aperture 36 in the frame 23, as shown in Fig. 6, and holds the top 32 firmly in engagement with frame 23. In order to swing the top open the catch 35 must be pressed inwardly until it can be withdrawn from aperture 36. A chain 40 connects the top 32 and frame 23, as shown in Fig. 2, and prevents the top from being swung too far open. The hinge 33 is arranged so as to allow the top to fit tightly on the frame 23. The hinge is completely within the lantern and its mounting does not cause opening or cuts to be made, in the frame or the top, which are unsightly or apt to allow water to get into the lantern. The catch 35 extends through an opening in an overhung part of frame 23, so that water cannot enter at that opening.

The top 32 comprises an upper portion 37 and a lower portion 38. The lower portion 38 curves upwardly and inwardly from the flange 32, as shown in Figs. 1 and 2. At the top of portion 38 there is a flange 39 which fits within the bottom of the upper portion 37. The top portion 37 extends a short distance above the lower portion 38 and is so shaped as to make the lamp ornamental and sightly. In the top portion 37, and preferably in a part of said portion which faces downwardly, there are vent holes 41. In practice the vent holes 41 are punched in the metal and are punched in such a manner as to have the burred or turned edge on the outside. The hole being made in this manner prevents water from getting within the lamp. Within the lamp there is a reflector 50 which is mounted in the top 32. The reflector 50 is of sheet metal in the form of an octagonal pyramid inverted, which extends from the inner sides of lower portion 38 inwardly and downwardly to a central point or vertex 52. The reflector 50 is not attached to the lower portion 38 but is held in place up against that portion by a bolt 53 which extends from the top of top portion 37 downwardly to the center of the reflector as shown in Figs. 1 and 2. The bolt 53 has a head 53^a which extends above portion 37 and bears upon the top of said portion. The

under side of reflector is highly polished and due to its shape and location it reflects the light, which shines upwardly on it, outwardly through the glasses 31. In each triangular portion 51 near the edge which engages the lower portion 38 there is a hole 55. When a lamp is burning within the lantern, heated air may pass through the holes 55 and escape from the lamp through holes 41. At all times air can circulate through the lantern through the holes in the base and the holes in the top.

If water gets into the lantern it will run down the inner surfaces of the lantern and drain into the groove 16, from which it will escape through apertures 17. No water can ordinarily enter the lantern owing to its water proof construction; but moisture may condense on its inner surfaces, particularly the inner glass surfaces, and flow down to the bottom. All such condensation is carried off by apertures 17.

The various parts hereinabove described are preferably stamped from sheet metal. But it will be understood that the parts could be cast or formed in other manner. The exact shape or design of the lantern can also be varied as desired, for instance, the lantern can be made to have any desired number of sides.

Having described a specific preferred form of the invention and considering the foregoing description as that of a typical form of the invention I do not wish to limit myself to the exact details hereinabove set forth but wish to reserve to myself any changes or modifications that appear to those skilled in the art or fall within the scope of the following claims.

Having described a preferred form of my invention, I claim:

1. In a lantern of the character described, a base having an annular portion and a portion having a plurality of sides, a bracket adapted to carry the annular portion of said base, a frame having a plurality of sides, corner members extending between the corners formed by the adjacent sides of the frame and the corners of the polygonal portion of the base, each of said members being so shaped from a strip of sheet metal as to form grooves, transparent plates removably carried in adjacent grooves of said corner members and extending between the base and the frame, a top hinged to said frame, said top having a plurality of sides and an overhanging downwardly facing portion with ventilating holes in it, and a reflector mounted in said top, said reflector comprising triangular shaped portions the bases of which engage the inner sides of the top below said overhanging downwardly facing portion and the apexes of which join at a common point below the plane of the engagement of the bases with the top, the reflector having ventilating holes in it.

2. In a lantern of the character described, a base having an annular portion and a portion having a plurality of sides, a bracket adapted to carry the annular portion of said base, a frame having a plurality of sides, corner members extending between the corners formed by the adjacent sides of the frame and the corners of the polygonal portion of the base, each of said members being so shaped from a strip of sheet metal as to form grooves, transparent plates removably carried in adjacent grooves of said corner members and extending between the base and the frame, a top hinged to said frame said top having a plurality of sides and a reflector mounted in said top said reflector comprising triangular-shaped portions the bases of which engage the inner sides of the top near the lower edges of said top and the apexes of which join at a common point below the plane of the engagement of the bases with the top.

In witness that I claim the foregoing I have hereunto subscribed my name this 20th day of February, 1920.

HENRY BARKSCHAT.

Witness:

VIRGINIA I. BERINGER.