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DOOR CONSTRUCTION FOR LAMPS AND THE LIKE

Filed July 13, 1926

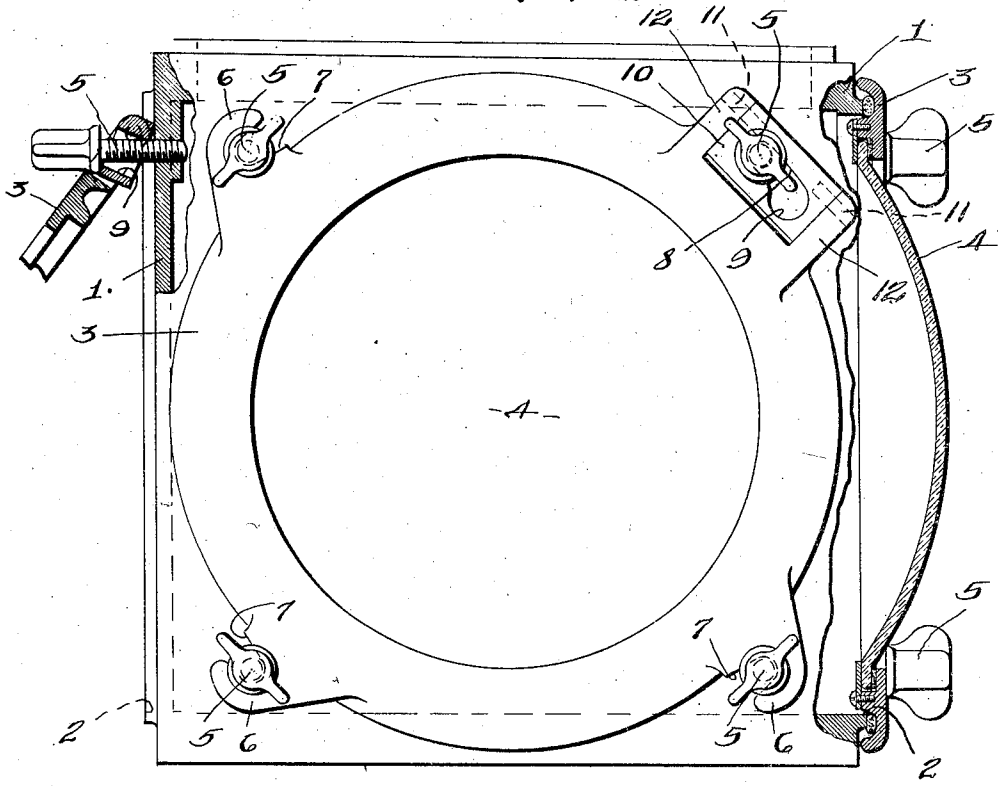


Fig. 1.

Fig. 3.

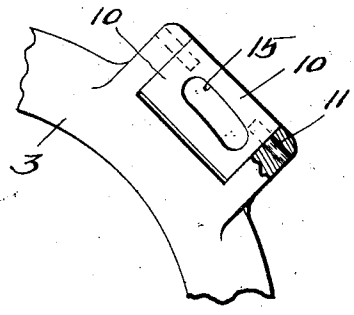
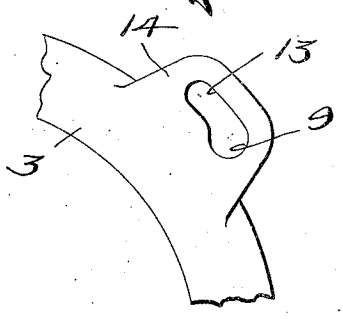


Fig. 2.



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UNITED STATES PATENT OFFICE.

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DOOR CONSTRUCTION FOR LAMPS AND THE LIKE.

Application filed July 13, 1926. Serial No. 122,235.

This invention relates to a door construction and particularly to means for holding a door as the door of a lamp casing or similar doors as port lights, tightly closed so that they are weather tight and whereby the door can be opened and swings entirely out of the way.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawing in which like characters designate corresponding parts in all the views.

My door construction is here shown as embodied in a lamp construction or applied to a lamp casing or box and in the drawing, Figure 1, is an elevation of a door embodying one form of my invention, the contiguous part of a lamp casing to which the door is applied and also the doors on the other sides of the casing being also shown.

Figure 2 is a fragmentary elevation of the door embodying another form of this invention.

Figure 3 is a view similar to Figure 2 of still another form of this invention.

This door construction comprises generally, a body or box having a door opening, a plurality of studs, preferably more than two, spaced apart around the door opening and preferably in a circle struck from the center of the door opening, the studs having heads at their outer ends, a door provided with outward projections formed with slots extending in the general direction of an arc struck from the center of the door, these slots being open at like ends, an additional means provided with a slot located at the rim of the door for receiving another of the studs, this slot also extending in a general direction of an arc struck from the center of the door.

1 designates the body which is here shown cubical in form and having door openings 2 on a plurality of sides thereof and a door for each opening. The doors are all alike in construction.

3 designates each of the doors which include a frame or rim in which a glass or lens 4 is mounted in any suitable manner.

The openings 2 of the door are usually round or circular and also the rims of the door 3 are correspondingly circular.

5 are the studs spaced apart around the door opening, these studs being here shown as four in number spaced equidistance apart.

The rim or frame of the door 3 is provided with outward projections as lugs 6 having open ended slots 7 therein, these slots extending in the general direction of an arc of a circle struck from the center of the door or of the door opening, the slots being open at like ends so that the lugs are practically hooks. As here shown, there are three hook shaped lugs 6.

The door is also provided with means formed with an additional slot 8 for receiving the fourth stud 5, this slot 8 also extending in the general direction of the arc of said circle and having an enlargement 9 at one end. The slot may be provided in a hinge block as 10 having trunnions 11 at its ends hinged to projections or lugs 12 extending outwardly from the rim of the door 3, the axes of the trunnions extend in a chord of the arc of said circle; or as seen in Figure 2, the slot 13 corresponding to the slot 8 may be provided directly in the lug 14 instead of in the block. Also, as seen in Figure 3, the slot 15 corresponding to the slot 8 may be formed without the enlargement 9.

The studs 5 are here shown as wing screws threading into holes in the body.

In operation, the wing screws are normally tightened holding the door snugly in closed position. To open the door all the wing screws, are loosened and then the door given a slight turn about its axis to move the lugs 6 out of engagement with the wing screws or studs 5, this movement also moving the slot 8 along the remaining wing screw 5 so that the door can now be swung outwardly and laterally, the outward swinging permitting the lugs 6 to clear the wing screws 5. This outward swinging is permitted by the hinge block 10 or by the enlargement 9 of the slot 8 or 13 without requiring much loosening movement on the part of the wing screws 5. To close the door, the reverse of these movements takes place.

This door construction is particularly advantageous in that the door is held snugly in closed position and can be opened with very little loosening movement of the wing screws.

What I claim is:

1. In a door construction, the combination of a body having a door opening, a plurality of studs spaced apart in a circle

around the door opening, a door provided with outwardly projecting lugs formed with open ended slots for receiving all but one of the studs and an additional lug formed with a slot provided with an enlargement, said studs being screws threading in the body through the slots.

2. In a door construction, the combination of a body having a door opening, a plurality of studs spaced apart in a circle around the opening and having heads at their outer ends, a door provided with a plurality of outwardly projecting lugs formed with open ended slots extending in the direction of an arc of a circle struck from the center of the door, for receiving all but one of the studs and the door being provided with means formed with a slot extending in the arc of such circle for receiving the remaining stud.

3. In a door construction, the combination of a body having a door opening, a plurality of studs spaced apart in a circle around the opening and having heads at their outer ends, a door provided with a plurality of outwardly projecting lugs formed with open ended slots extending in the direction of an arc of a circle struck from the center of the door for receiving all but one of the studs and the door being provided with means formed with a slot extending in the arc of such circle for receiving the remaining stud, the slot being provided with an enlargement at one end.

4. In a door construction, the combination of a body having a door opening, a plurality of studs spaced apart in a circle around the opening and having heads at their outer ends, a door provided with a plurality of outwardly projecting lugs formed with open ended slots extending in the direction of an arc of a circle struck from the center of the door for receiving all but one of the studs and the door being provided with means formed with a slot extending in the arc of such circle for receiving one of the studs, the studs being screws threading into the body through the slots with their heads overlying the lugs and said slotted means.

5. In a door construction, the combination of a body having a door opening, a plurality of studs spaced apart around the door opening having heads at their outer ends, a door provided with outwardly projecting lugs formed with slots extending in the general direction of an arc struck from the center of the door, the door being also provided with outwardly projecting means formed with a slot extending in the general direction of such arc for receiving one of the studs, said means comprising a hinge block formed with said slot and hinged to the door on an axis extending in the direction of a chord of such arc.

6. In a door construction, the combination of a body having a door opening, a plurality of studs spaced apart around the door opening having heads at their outer ends, a door provided with outwardly projecting lugs formed with slots extending in the general direction of an arc struck from the center of the door, the door being also provided with outwardly projecting means formed with a slot extending in the general direction of such arc for receiving one of the studs, said means comprising a hinge block formed with said slot and hinged to the door on an axis extending in the direction of a chord of such arc, the slot in the hinged block being provided with an enlargement.

7. In a door construction, the combination of a body having a door opening, a plurality of studs spaced apart around the door opening having heads at their outer ends, a door provided with outwardly projecting lugs formed with slots extending in the general direction of an arc struck from the center of the door, the door being also provided with outwardly projecting means formed with a slot extending in the general direction of such arc for receiving one of the studs, said means comprising a hinge block formed with said slot and hinged to the door on an axis extending in the direction of a chord of such arc, the studs being clamping screws threading into the body through the slots and having the heads overlying the lugs and the hinge block.

In testimony whereof, I have hereunto signed my name, at Syracuse, in the county of Onondaga, and State of New York, this 26th day of June, 1926.

ROYAL E. CROSSLEY.