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GROUNDING ATTACHMENT FOR PORTABLE ELECTRIC LAMPS

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This invention relates to portable incandescent electric lamps and relates particularly to attachments for grounding the lamp guards thereof.

The object of the invention is to provide simple and inexpensive means for effectively grounding the lamp guards of electric lamps of the general type comprising a holder having a suitable handle, said holder being provided with a tapered recess and with a hole which extends lengthwise through the handle and which communicates with the inner end of the recess therein, a socket member of insulating material adapted to be removably secured in said recess, and a lamp guard adapted to be attached to said holder so as to enclose an incandescent electric lamp in the lamp socket.

To effect the objects thereof, a grounding attachment embodying my invention and improvements comprises the various features, combinations of features and details of construction hereinafter described and claimed.

In the accompanying drawing, in which my invention is fully illustrated,

Fig. 1 is a side view, partly in central, longitudinal section and partly in diagram, of a holder for a portable incandescent electric lamp equipped with a grounding attachment embodying my invention; and

Fig. 2 is a view of the socket member of the lamp from the right side of Fig. 1, a portion of the lamp holder being shown in diagram.

Describing the invention with reference to the drawing, in which I have shown a portable electric lamp of the type to which the present invention has particular reference, A designates the holder of the lamp as a whole, comprising an enlarged body portion 1, for the most part shown in section, and a handle portion 2, shown in diagram.

Formed in the body portion 1 of the holder is a recess 3 adapted to receive a socket member *a* provided with a usual socket adapted to receive an electric light bulb, indicated at 4, Fig. 1, and having usual electric contacts and connections for said light.

The lamp 4 is enclosed and protected by a guard designated as a whole *b*, the open end of which is adapted to be clamped or otherwise secured to the holder A adjacent the open end of the recess 3 therein in a usual or any desired manner.

For purposes of clear and definite illustration and description, it will be assumed that the holder A is made of rubber which is vulcanized to such an extent that it will be sufficiently rigid to retain

its shape under all operating conditions, while the recessed portion 1 will be sufficiently flexible to conform readily to any surface irregularities on the socket member *a*. In practice, both the recess 3 and the socket member *a* are correspondingly tapered, the recess 3 being sufficiently smaller than said socket member that when said socket member is fully seated in said recess, it will be retained therein by frictional engagement with the walls thereof while, at the same time, permitting removal of said socket member, when desired. My invention, however, contemplates equally making said holder of any suitable or desired insulating material.

The socket member may be made of hard rubber, porcelain, phenolic condensation product or other suitable insulating material.

The guard *b* exemplifies any desired or approved form of guard, consisting, as shown, of longitudinal wires 5 connected in spaced relation by circular wires 6 and a circular clamping band 7, the circular wires 6 being secured to the inner sides of the wires 5 and the band 7 to the outer sides of the ends thereof which, in use, are attached directly to the holder A.

In accordance with the present invention, the guard *b* is adapted to be grounded by means of a grounding attachment consisting, as shown, of a clip 8 anchored to a bushing 9 embedded in the socket member *a*, the free end of which is bent over the edge of the recess 3 in the body portion 1 of the holder A so as to rest in contact with that portion of the surface of said holder which forms the seat for the guard *b*, as shown, with the bottom of a groove 10 formed in the body portion of said holder adjacent its recessed end. For convenience in assembling said clip 8 in proper relation to the guard *b* so that said clip will contact with one or more of the cage wires 5, said clip is provided at the portion thereof designed to contact with the wires of said guard, with projections 11 of such length that, in use, they will contact with a plurality of the cage wires 5.

The clip 8 is preferably made of thin sheet copper, or other metal which is a good conductor of electricity, pliable and somewhat resilient, and is anchored to the socket member *a* by a screw 12 threaded to a hole formed in the bushing 9.

In the preferable construction shown, the portion of the clip 8, which extends into the recess 3 in the body portion 1 of the holder A, is confined in the upper end of a groove 13 formed in the outer surface of the socket member *a*, which

is of slightly greater depth than the gauge of the metal forming said clip.

The clip 8 is grounded by means of a conductor wire 14 shown as connected thereto by the screw 5 12, the opposite end of which is connected to ground. As shown, also, the end of the conductor wire 14 connected to the clip 8 is confined in the lower end of the groove 13 in the socket member a, the depth of said groove being substantially equal to the diameter of said conductor wire.

I claim:

1. A portable incandescent electric lamp, comprising a recessed holder, a separate socket member shaped and proportioned to fit within the recess in said holder with lateral surfaces thereof in contact, a lamp guard, means for detachably securing said guard to said holder, and electric contacts and connections including a grounding contact and connection for the lamp guard, com-

prising a clip of conducting material secured to the socket member of the lamp and bent reversely over the edge of the recessed holder with a part thereof extending over the lamp guard seat on said recessed holder, the relation being such that attaching said guard in operative position to said holder will effect electrical contact thereof with said clip, all electric connections including said grounding connection, being made directly to said socket member and being insertable into and removable from the recess in said holder therewith.

2. The lamp specified in claim 1, the grounding clip of which is made of resilient material and is bent reversely over the edge of the recessed holder and extends over the lamp guard seat, the relation being such that attaching said guard will clamp a part of said clip between said guard and its seat.

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