April 21, 1953 G. B. HUME 2,635,781

COVER STRUCTURE FOR CAGE-TYPE HOLLOW BODIES

Filed Feb. 20, 1950 2 SHEETS—SHEET 1

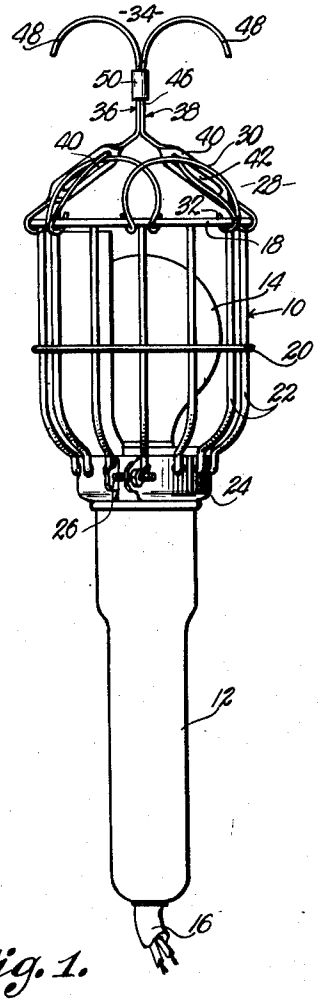


Fig. 1.

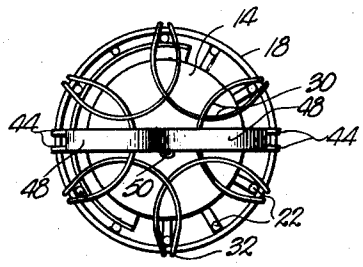


Fig. 2.

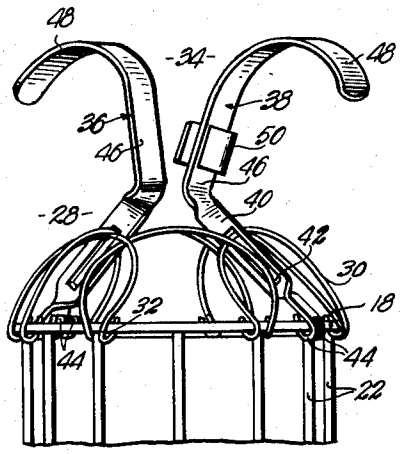


Fig. 4.

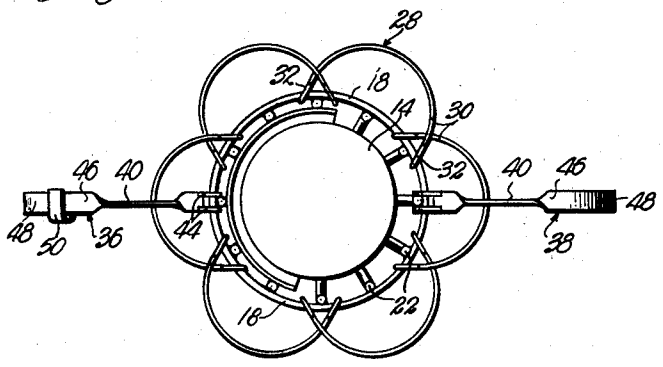


Fig. 3.

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COVER STRUCTURE FOR CAGE-TYPE HOLLOW BODIES

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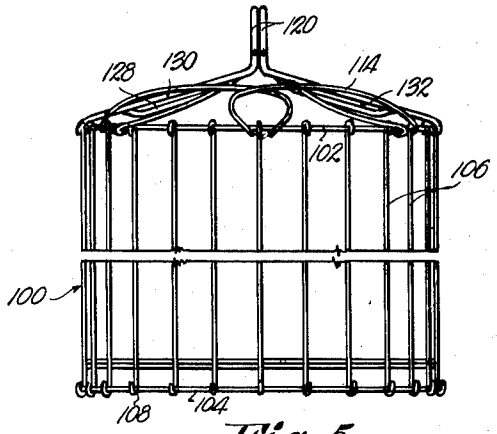


Fig. 5.

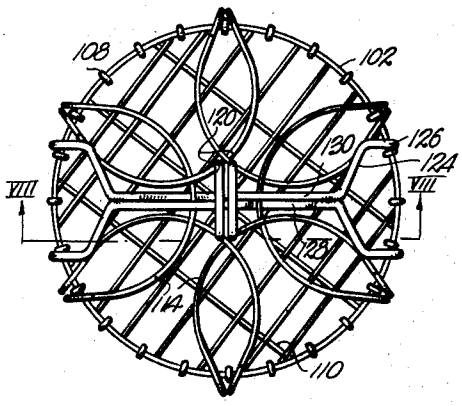


Fig. 6.

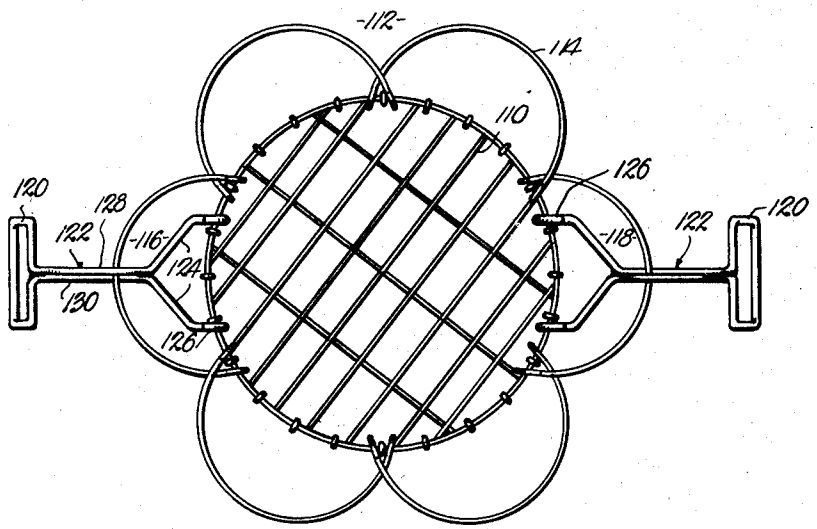


Fig. 7.

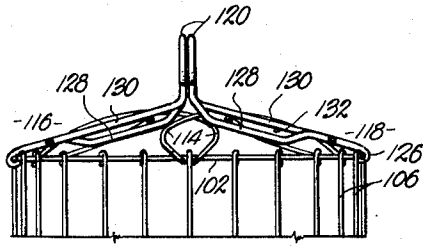


Fig. 8.

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COVER STRUCTURE FOR CAGE-TYPE HOLLOW BODIES

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Application February 20, 1950, Serial No. 145,111

6 Claims. (Cl. 220—19)

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This invention relates generally to closures for containers and the like, the primary object being to provide actuating structure for skeleton closures of the kind forming the subject matter of U. S. Letters Patent No. 1,921,295, dated August 8, 1933, and entitled "Incandescent Lamp Guard."

The closure structure of the aforesaid patent and including a plurality of interlocked swingable loops, has for many years proved entirely satisfactory, but there has existed a somewhat difficult problem of providing handles for the containers with which the closure is used, not only for the purpose of facilitating handling of the container itself and in some instances hanging of the same upon suitable supports during use, but from the standpoint of supplying actuating means to move the closure to and from an open position.

It is accordingly the most important object of the present invention to provide handle structure for skeleton closures of the aforementioned character that are swingably secured to the container in the same manner as the loop structure of the closure itself and each slidably interconnected with one of the loops of the closure for simultaneously imparting swinging movement to a pair of the loops and thereby actuating the closure with distributed forces tending to prevent damage to the closure itself.

Another object of the present invention is to provide handle structure for skeleton closures formed to cooperate with parts of the container upon which the closure is mounted whereby the handles are held in a predetermined position and cannot be accidentally displaced from the desired, predetermined point at which pressure is to be applied to certain of the loops of the closure.

Other objects of the present invention relate to the way in which a pair of handles are formed to meet on the longitudinal axis of the container; the manner of presenting loops in the handles to permit hanging of the container; and the way in which the handles are releasably interlocked for holding the closure in the normal operative position.

More minor objects will be made clear or become apparent as the following specification progresses, reference being had to the accompanying drawing, wherein:

Figure 1 is a side elevational view of cover structure for cage-type, hollow bodies embodying one form of my present invention.

Fig. 2 is a top plan view thereof.

Fig. 3 is a top plan view showing the cover structure in an open position.

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Fig. 4 is an enlarged, fragmentary, perspective view showing the handles separated and the cover structure partially open.

Fig. 5 is a side elevational view showing a modified form of cover structure.

Fig. 6 is a top plan view of the structure illustrated in Fig. 5.

Fig. 7 is an enlarged top plan view showing the cover structure of Figs. 5 and 6 in an open position; and

Fig. 8 is a fragmentary, cross-sectional view taken on line VIII—VIII of Fig. 6.

The cover structure forming the subject matter of this invention is shown in Figs. 1 to 5 inclusive, mounted upon a guard member for electric lamps of the well-known type commonly employed by mechanics and workmen generally.

The lamp guard includes a skeleton frame or body broadly designated by the numeral 10 mounted upon an elongated handle 12 that is tubular and preferably made from rubber or other insulating material. The hollow handle 12 has a conventional lamp socket (not shown) mounted therein for receiving an electric lamp 14 and for connecting with an extension cord 16 that is provided with the usual electrical conductors to connect with a suitable outlet.

Body 10 includes a pair of annular wire bands 18 and 20 and a plurality of elongated, spaced-apart substantially parallel rods 22 within the spaced rings 18 and 20 and secured directly thereto by spot-welding or the like.

A split band 24 in opposed relationship to ring 18 receives the proximal ends of the rods 22 and circumscribes one end of the handle 12. Bolt and nut structure 26 on band 24 releasably joins the latter to handle 12.

Cover structure for the body 10 is broadly designated by the numeral 28 and is substantially identical with that disclosed in said Patent No. 1,921,295. Skeleton cover 28 includes a plurality of identical semi-circular loops 30 hingedly joined with the ring 18 by means of an eyelet 32 on the free end of each leg respectively of loop 30. The series of loops 30 are continuous throughout the length of ring 18 and as most clearly illustrated in Fig. 3 of the drawing, one leg of each loop 30 overlies the leg of the loop 30 next adjacent thereto and the opposite leg of each loop 30 underlies its proximal loop 30. Consequently, as fully explained in the above mentioned patent, the cover structure 28 may be moved from the normally closed position shown in Figs. 1 and 2 to the fully open position illustrated in Fig. 3 of the drawing, by grasping any pair of opposed loops 30 and swinging the same outwardly on the

ring 18. There is a tendency however, for users to attempt to swing the cover structure 28 to and from an open position by merely grasping one of the loops 30, thereby causing damage to the cover by bending of the loops that must undergo the force necessary to actuate the cover. Furthermore, it is usually necessary in using extension lamps of this character, to hang the same from a suitable support while in use, and inasmuch as the cover 28 must be maintained free for opening and closing to replace lamps 14, handle structure broadly designated by the numeral 34, has been provided.

Handle structure 34 includes a pair of identical handles 36 and 38, each formed from an initially flat strip of bendable material. The elongated strip is initially twisted to present an intermediate stretch 40 that is perpendicular to the remaining lengh thereof and stretch 40 is provided with an elongated opening 42. One end of the strip is bifurcated, presenting a pair of fingers 44 that are looped about the ring 18 in embracing relationship to one of the rods 22 and between the legs of one of the loops 30. It is noted that said one loop is threaded through the opening 42 in stretch 40 for free sliding movement therein.

That end of the strip of material opposite to the fingers 44 is bent at an angle to stretch 40 to present an elongated straight portion 46 that terminates in an arcuate loop 48.

It is noted in Figs. 1 and 2 of the drawing that when the cover 28 is in the fully closed position, the handles 36 and 38 are together with the straight portions 46 thereof in interengaging face to face relationship on the longitudinal axis of body 10 and handle 12 and that the loop portions 48 extend outwardly in opposite directions from each other. When it is desired to open the cover 28, the handles 37 and 38 are grasped at the looped portions 48 thereof and moved apart to the position illustrated in Fig. 3 and when in such position, handles 36 and 38, as well as all of the loops 30, are in substantially the same plane through the ring 18.

Means for releasably interconnecting the handles 36 and 38 when the same are closed and together, includes a U-shaped clip 50 mounted on handle 38 in embracing relationship to the portion 46 thereof. One leg of the clip 50 is welded or otherwise affixed directly to the outermost face of stretch 46 and when the handles 36 and 38 are together, the opposite leg of clip 50 embraces the outermost face of handle 36.

A sufficiently loose fit is provided at the fingers 44 to prevent lateral movement of the handles 36 and 38 whereby clip 50 may be rendered releasable as desired to open the cover 28. It is to be noted that as the handles 36 and 38 are actuated, the corresponding loops 30 thereof slide freely within the elongated openings 42 and force is applied to these loops at the bight thereof while the handles 36 and 38 swing on the ring 18. Handles 36 and 38 are held substantially at the bight of their respective loops by virtue of the interlocking connection between fingers 44 and their corresponding rods 22.

In Figs. 5 to 8 inclusive of the drawings, there is illustrated a conventional trash burner, broadly designated by the numeral 100. Burner 100 includes a pair of opposed circular rings 102 and 104 interconnected by a plurality of spaced-apart, elongated parallel rods by means of eyelets 108 looped about the corresponding rings 102 and 104.

A bottom 110, taking the form of a grill within the burner 100 is secured directly to the rods 106 by welding in spaced relationship to the ring 104. A cover 112 including a plurality of loops 114 hingedly secured to the ring 102, is identical in nature to cover structure 28 above described.

A pair of identical handles 116 and 118 are each made from a single length of rod-like material bent upon itself to present a polygonal grip 120, a shank 122, a pair of diverging legs 124 and a pair of spaced-apart eyelets 126 looped about the ring 102.

The shank 122 includes a pair of stretches 128 and 130 disposed on opposite sides of a respective loop 114 adjacent the bight thereof. It is noted in Fig. 8 of the drawing that the stretch 130 of shank 122 overlying loop 114 is substantially straight throughout its length, whereas the stretch 128 that extends below loop 114 is offset with respect to stretch 130 presenting an elongated slot 132 for slidably receiving loop 114. The eyelets 126 formed on the outermost free ends of the diverging portions 124 are spaced apart a sufficient distance to embrace a plurality of eyelets 108 on ring 102 to thereby hold the handles 116 and 118 against lateral sliding movement on the ring 102. It is to be noted that the grip portions 120 are bent at an angle with respect to the shanks 122, whereby grips 120 meet and register on the longitudinal axis of burner 100 when the cover 112 is in the closed position as illustrated in Figs. 5, 6 and 8. Handles 116 and 118, as well as all of the loops 114, are in substantially the same plane through ring 102 when cover 112 is open as shown in Fig. 7 of the drawing.

Handles 116 and 118 serve not only as a means of moving the cover 112 to and from an open position but facilitate handling of the burner 110 and carrying the same about when the operator extends his fingers through grips 120.

While the cover structure hereof has been illustrated in connection with two differing types of bodies, i. e., a lamp guard and a trash burner, it is to be appreciated that the principles hereof may well be applied for use on various receptacles differing from that chosen for illustration. By the same token, many other changes and modifications may be made within the spirit of this invention and it is therefore, desired to be limited only by the scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. In a hollow body, a skeleton closure including a series of loops, each having the legs thereof hingedly joined to said body and each partially overlapping the loop adjacent one side thereof and underlying the loop adjacent the opposite side thereof; and operating structure for said closure including a pair of opposed handles each hingedly secured to said body and having portions in side-by-side relationship remote from the closure when the latter is closed, one of said loops being slidably connected with each handle respectively.

2. In a hollow body, a skeleton closure including a series of loops, each having the legs thereof hingedly joined to said body and each partially overlapping the loop adjacent one side thereof and underlying the loop adjacent the opposite side thereof; and operating structure for said closure comprising a pair of opposed handles, each including a single, elongated bar hingedly secured to said body, one of said loops being slidably connected with each bar respectively, each bar hav-

ing a single eye coiled about a portion of the body between the legs of its corresponding loop.

3. In a hollow body, a skeleton closure including a series of loops, each having the legs thereof hingedly joined to said body and each partially overlapping the loop adjacent one side thereof and underlying the loop adjacent the opposite side thereof; operating structure for said closure including a pair of opposed handles each hingedly secured to said body, one of said loops being slidably connected with each handle respectively; and a pair of spaced coils for each handle respectively pivotally connected with the body and on each side respectively of a portion thereof for holding the handles against movement toward or away from said last mentioned legs.

4. Container construction comprising a hollow body having a closed frame member and a plurality of spaced side members extending from said frame member; a skeleton closure for said frame member including a series of loops, each having the legs thereof hingedly joined to said frame member and each partially overlapping the loop adjacent one side thereof and underlying the loop adjacent the opposite side thereof; and operating structure for said closure including a pair of opposed handles hingedly secured to said frame member in partial embracing relationship to one of said side members, one of said loops being slidably connected with each handle respectively, there being an elongated slot formed in each handle respectively for receiving the bight of the corresponding loop.

5. In a hollow body having a skeleton closure including a series of loops, each having the legs

thereof hingedly joined to said body and each partially overlapping the loop adjacent one side thereof and underlying the loop adjacent the opposite side thereof; operating structure for said closure including a pair of opposed handles each hingedly secured to said body, one of said loops being slidably connected with each handle respectively, there being an elongated slot formed in each handle respectively for receiving the bight of the corresponding loop.

6. In a hollow body having a skeleton closure including a series of loops, each having the legs thereof hingedly joined to said body and each partially overlapping the loop adjacent one side thereof and underlying the loop adjacent the opposite side thereof; operating structure for said closure including a pair of opposed handles each hingedly secured to said body and having portions in side-by-side relationship remote from the closure when the latter is closed, one of said loops being slidably connected with each handle respectively; and means normally in partial embracing relationship to said portions for releasably holding the handles interlocked when the closure is in the closed position.

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