Dec. 8, 1953 K. BERGER 2,662,166

LAMP HARP

Filed Oct. 13, 1949

Fig. 1.

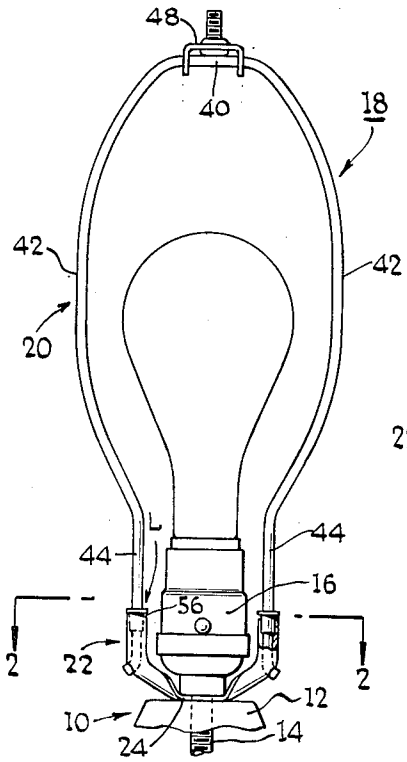


Fig. 2.

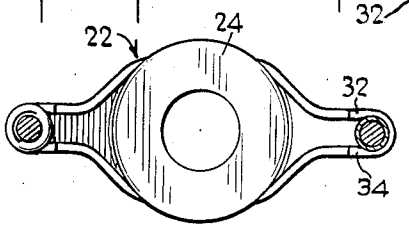


Fig. 2a.

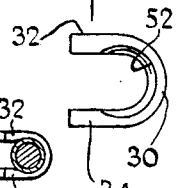


Fig. 3.

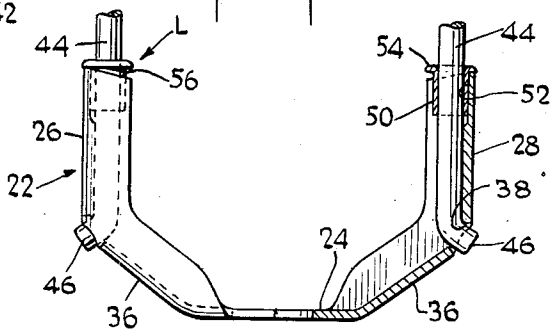


Fig. 4.

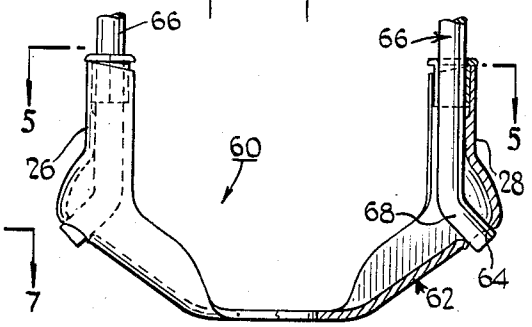


Fig. 5.

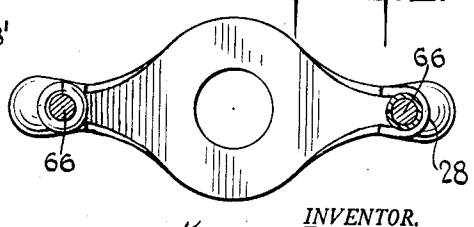


Fig. 6.

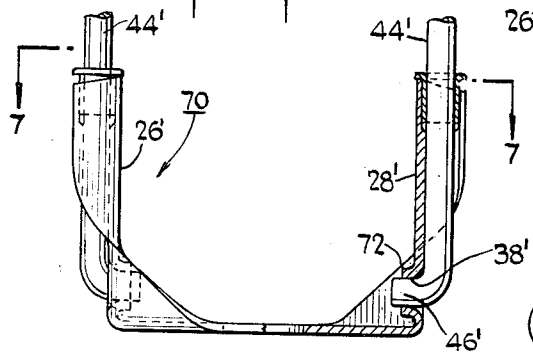
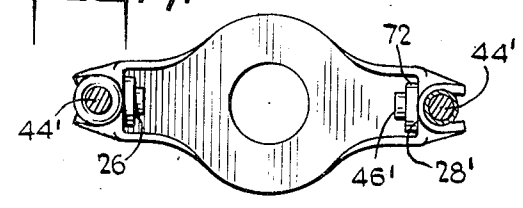


Fig. 7.



INVENTOR.
KORNEL BERGER

BY

ATTORNEY

Patented Dec. 8, 1953

2,662,166

UNITED STATES PATENT OFFICE

2,662,166

LAMP HARP

Kornel Berger, Kew Gardens, N. Y.

Application October 13, 1949, Serial No. 121,191

1 Claim. (Cl. 240—148)

1

This invention relates to lamp harps.

In general, it is an object of my invention to provide a lamp harp having an improved construction for detachably securing a harp bail to a harp bracket.

More specifically, it is an object of my invention to provide a lamp harp in which the bail and bracket are detachably interconnected by a sturdy, inexpensive and easily manipulated mechanism.

It is another specific object of my invention to provide a lamp harp in which the bail and harp are detachably interconnected by a mechanism which provides a very firm joint.

It is another specific object of my invention to provide a lamp harp in which the bail and bracket are detachably interconnected by a mechanism which will not accidentally disengage in the normal use thereof.

Other objects of my invention will in part be obvious and in part will be pointed out hereinafter.

My invention accordingly consists in the features of construction, combinations of elements and arrangements of parts which will be exemplified in the constructions hereinafter described and illustrated, and of which the scope of application will be indicated in the appended claim.

In the accompanying drawings in which are shown the various possible embodiments of my invention,

Fig. 1 is a front view of a lamp harp constructed in accordance with my invention and shown mounted on a lamp;

Fig. 2 is an enlarged sectional view of the harp taken substantially along the line 2—2 of Fig. 1;

Fig. 2*a* is an enlarged top view of one of the arms of the harp bracket as it appears with the bail detached.

Fig. 3 is an enlarged front view in half-section of the harp bracket and bottom portion of the harp bail;

Fig. 4 is a view similar to Fig. 3 of a lamp harp embodying a modified form of my invention;

Fig. 5 is a sectional view taken substantially along the line 5—5 of Fig. 4;

Fig. 6 is a view similar to Fig. 3 of a lamp harp embodying another modified form of my invention, and

Fig. 7 is a sectional view taken substantially along the line 7—7 of Fig. 6.

In general I carry out my invention by providing a bracket having a pair of upstanding arms of generally U-shaped transverse cross-sections

2

within which the lower ends of a resilient bail nestably are received. The bracket and bail are so mutually formed in a manner well known to the art that the same are engaged and disengaged by transverse movement of the ends of the bail. At their tops, the arms are formed with sockets within the U-shaped cross-sections, said sockets being wider than the space between the legs of the U, so that the sockets do not interfere with the transverse movement of the bail ends into the bracket. The lower ends of the bail have slidably mounted thereon sleeves which are internally dimensioned for a snug sliding fit on the bail and are externally dimensioned for snug sliding fits in the sockets. Since the dimension of the socket exceeds the internal width of the U-shaped bracket arms, when the sleeves are in the sockets the lower ends of the bail cannot be disengaged by transverse movement out of the open sides of the U-shaped arms. In this position, the sleeves are substantially concealed and the harp has an attractive smooth external appearance.

Referring now in detail to the drawings, and more particularly to Figs. 1, 2, 2*a* and 3, the reference numeral 10 denotes a lamp fixture of conventional construction comprising a suitable ornamental support 12 having an opening in its upper end in which there is received a nipple 14. The top of the nipple is screwed into the tapped bottom collar of a standard electric light socket 16.

Firmly secured to the lamp fixture 10 by clamping between the socket collar and support 12 is a lamp harp 18 whose construction is the subject of this invention. Said harp consists of a bail 20 and a bracket 22.

The bracket is fabricated from a single piece of sheet metal by suitable punching, swaging and bending operations and includes the usual annular portion 24 which is slipped on the nipple 14 and clamped between the socket collar and support. The bracket thus is secured firmly to the lamp fixture so that it can be shipped therewith, the bail, however, being removed before shipping. The bracket also includes two erect arms 26, 28 located on diametrically opposite sides of the annular portion 24. Said arms are of U-shaped transverse cross-sectional configuration as best is shown in Fig. 2*a*, that is to say, the horizontal cross-sectional configuration of the arms includes a curved base 30 which extends over an annular distance of about 180° and a pair of approximately parallel flanges or legs

32, 34. These flanges extend inwardly toward the center of the fixture. If desired, the flanges may diverge slightly from one another in order to accommodate harp bails fabricated from slightly oversized wire. Sloping elements 36 of U-shaped transverse cross-sections constitute extensions of the arms 28 and connect the lower ends of the arms to opposite portions of the annulus 24.

Each arm (inclusive of its associated element) has a transversely extending opening 38 formed therein below the upper end of the arm, the opening being located in the base of the U or an equivalent position where it can receive a projection on the bail as the latter moves towards the base between the tips of the U.

The harp bail 18 comprises a piece of metal wire or like resilient material bent into the shape shown in Fig. 1 so as to include a flat top portion 40, outwardly bowed intermediate sections 42, straight portions 44 adjacent the ends thereof and transversely extending out-turned fingers 46. When disengaged from the bracket the end portions 44 are spaced apart a distance greater than the distance between the bracket arms 28 whereby said ends upon engagement with the bracket will press against the bases of the U.

Except for the fingers 46, the bail is of conventional construction and has on its top portion 40 a swivel fixture 48 or other suitable means to receive a finial by means of which a lamp shade is secured to the bail.

The fingers 46 are so disposed that when the lower portions of the straight end portions 44 are operatively located within the U-shaped arms 28, said fingers are received in the openings 38. As shown, the axes of these openings are inclined to the longitudinal axes of the arms 28, and the fingers 46 are inclined at matching angles. More specifically, the axes of these openings are perpendicular to the bases of the elements 36 in which they are located. The location of the openings on the sloping elements 36 facilitates introduction of the fingers 46 therein and simplifies manufacture of the bracket.

In accordance with the principal feature of my invention each straight end portion 44 is provided with a locking member L. These members are so constructed that they are slidable on said end portions and are captively secured thereto, desirably having snug sliding fits on said straight end portions so that comparatively little play exists. Preferably, said members are economically fashioned in the shape of tubes or sleeves 50 whose inner diameters barely exceed the diameters of the straight end portions. The length of the sleeves preferably is less than the height of the arms 28, in order that, when the bail is detachably coupled to the bracket, in a manner soon to be described, the sleeves can be concealed over substantially their entire lengths within said arms.

Each arm 28 is fashioned with a counter-bored socket 52 at its upper end, said socket being dimensioned to snugly receive its associated sleeve 50. The breadth of the socket, and therefore of the sleeve, exceeds the space between the inner surface of the flanges 32, 34 of the U (see Fig. 2a), so that there is provided in the socket a constricted side opening which faces transversely in the same direction as the open end of the U. The socket preferably is sufficiently deep fully to receive its associated sleeve 50. The walls of the bracket arms are of reduced thickness in the region of the socket so that the external surfaces of the arms have a normal smooth

appearance like that of a conventional welded harp.

In order to facilitate withdrawal of a sleeve from and limit insertion of the sleeve into its associated socket, each sleeve is fashioned with an outwardly extending flange 54 at its upper edge. This flange also constitutes a projection against which a person can press his finger to aid engaging a sleeve and its associated socket.

Further to implement disengagement of a sleeve and socket, the upper edge 56 of each bracket arm may be inclined, thus leaving space for a person's fingernail to be inserted beneath the flange 54.

To engage, i. e. couple, the bail and bracket, the sleeves 50 are pushed up the straight end portions 44 and the ends of the bail are squeezed close enough together for introduction between the U-shaped arms 26, 28. For speediest assembly, the fingers 46 are placed against the sloping elements 36. Thereupon the bail ends are released and the bail shifted in a direction to move the fingers 46 toward the openings 38. As soon as the fingers reach these openings they will spring into the same under the opening tension of the bail. It will be observed that when the straight end portions are introduced into the U-shaped arms 26, 28 they enter the sockets 52 without any difficulty because the constricted transverse side openings of the sockets coincide with the space between the legs of the U and therefore is of the proper size to slidably pass the bail ends. Said end portions now are locked in place by pushing the sleeves 50 down said end portions into the sockets. When in such position the straight end portions cannot be moved transversely out of the U-shaped arms 26, 28 because the sleeves 50 are larger than the transverse constricted openings of the sockets.

The openings 38 are quite close to the central longitudinal axes of the straight end portions 44, hence, unless the fit between the fingers 46 and openings 38 is held to very close tolerances, some torsional play is permitted. I have found that such play can be reduced without reducing permissible tolerances by displacing the opening 38 from the central longitudinal axis of the bail end. A harp 60 embodying such a construction is illustrated in Figs. 4 and 5. Said harp differs from the harp of Fig. 1 in that the bracket 62 of the harp 60 has sloping elements 62 which extend outwardly beyond the bracket arms 26, 28. Openings 64 are provided in these extensions so that said openings are spaced further from the central longitudinal axis of the bail ends than are the openings 38.

The bail 66 of harp 60 has fingers 68 which are longer than the fingers 46 of harp 18 in order to be received within the openings 64.

It also will be appreciated that my invention may be practiced with U-shaped arms that have their open sides facing outwardly rather than inwardly. A lamp harp 70 of such modified construction is shown in Figs. 6 and 7. Said lamp harp has bracket arms 26', 28' of U-shaped transverse cross-sectional configuration, the open sides of the U's facing outwardly. In a lamp harp of this type the straight end portions 44' of the harp bail when disengaged from the bracket are spaced apart a distance less than the distance between the bracket arms so that said end portions upon engagement with the bracket will press against the bases of the U's. The fingers 46' of the bail ends instead of being outturned, as were the fingers 46, are in-turned for

reception in openings 38' in the bases of the U-shaped bracket arms. Twisting of the bail ends is inhibited by providing collars 72 on the bracket arms, the free (inner) ends of the collars comprising the constraining elements.

The lamp harps 60, 70 illustrated in Figs. 4–7 include sleeves and sockets which may in all respects be similar to those shown and described in the lamp harp 18.

However, if it is desired to effect a firmer lock between the bail and bracket, the sleeves instead of being solid as shown in Figs. 1–4, 6 and 7 can be split longitudinally as illustrated in Fig. 4 and their outer surfaces fashioned with a slight downward taper so that at least a portion of each sleeve is larger than the socket and will frictionally engage the socket in a tight fit when inserted therein.

It thus will be seen that I have provided lamp harps which achieve all the objects of my invention and are well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all matter herein described, or shown in the accompanying drawings, is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A take-apart lamp harp comprising a resilient bail circular in cross-section and a bracket, the bracket including two arms of oppositely facing U-shaped cross-section extending upwardly from the bracket, the open space between the legs of the U being wider than the diameter of the bail,

the bail including an elongated resilient member having straight portions adjacent the ends thereof which when engaged with the bracket press against the bases of the U's, the bracket and bail being so mutually formed that the same are engaged and disengaged by transverse movement of the ends of the bail, and a means for locking the bail to the bracket, said means comprising a socket at the upper end of each bracket arm, the socket being open at the top of the bracket arm, said socket being formed within the U-shaped cross-section of the arm and being wider than the space between the legs of the U so that the socket has a transversely facing constricted side entrance which freely passes the associated straight end portion of the bail, and a sleeve captively slidable on each straight end portion of the bail, said sleeve being snugly receivable in its associated socket in a direction axially of the socket, said sleeve being larger than the constricted side entrance of the associated socket whereby when the sleeves are in the sockets the bail cannot be detached from the bracket.

KORNEL BERGER.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,263,020	Becker	Apr. 16, 1918
1,507,902	Willenbacher	Sept. 9, 1924
2,147,239	Buchanan	Feb. 14, 1939
2,212,670	Murray	Aug. 27, 1940
2,270,497	Berger	Jan. 20, 1942
2,408,522	Leef	Oct. 1, 1946
2,453,658	Chilo	Nov. 9, 1948