Nov. 30, 1948. W. F. MASTERSON 2,455,131

LAMP BASE ASSEMBLY

Filed Jan. 19, 1946

Fig. 1

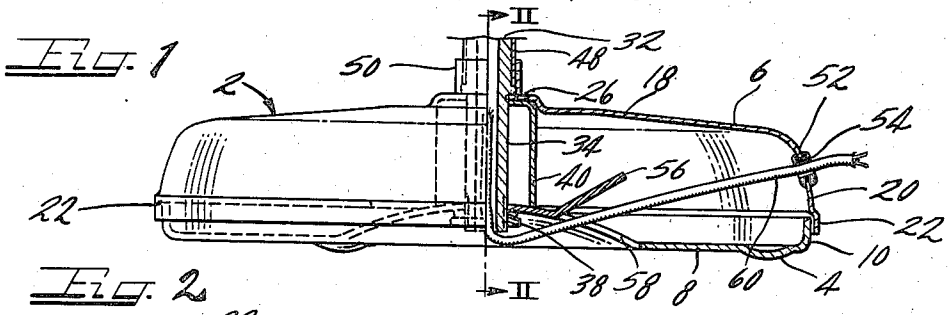


Fig. 2

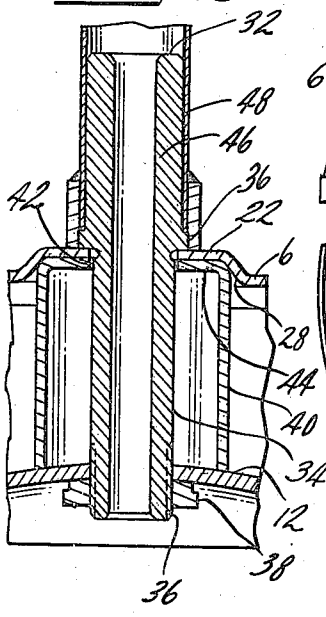


Fig. 3

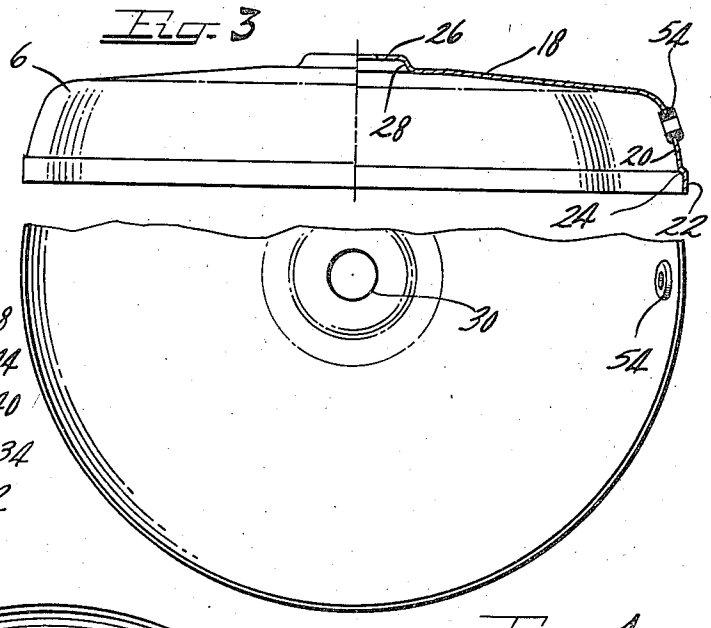


Fig. 4

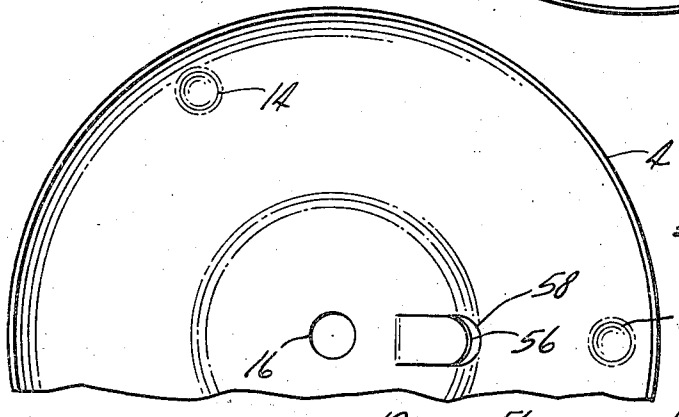


Fig. 6

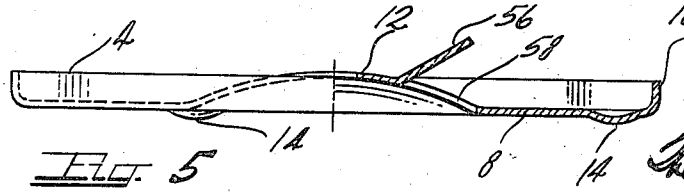


Fig. 5

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LAMP BASE ASSEMBLY

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4 Claims. (Cl. 248—194)

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This invention relates to a base construction for lamps or similar articles, and particularly to a base construction which may be formed in its entirety from stamped components.

The lamp base constructions heretofore commonly utilized generally comprised a heavy casting of non-ferrous or cast iron composition which was not only expensive to manufacture but in addition was undesirable from the standpoint of its weight versus stability characteristics. It is deemed obvious that in any base construction for an article such as a lamp wherein the vertical height of the article supported by the base is many times greater than the diameter of the base, greatest stability of the supported structure will be provided by a base having its diameter as large as possible. When forming the base from a casting, it is neither economically or structurally feasible to provide a large diameter base. Low quality metal castings by nature are quite frangible and this condition is particularly true when the casting has only a thin wall section. To provide a suitable large diameter base for a lamp by utilizing a casting having sufficient wall thickness to insure its serviceability, would result in a total weight for such base far in excess of that desirable for convenient portability of such lamp.

It is a feature of this invention that a lamp base construction is provided wherein the major components of the base are formed from stampings of metal of relatively thin cross-section. Such metal stampings, however, when formed from low alloy steels have greatly improved frangibility properties over the castings heretofore used for lamp bases and accordingly a larger diameter base structure may be economically provided, yielding improved stability and yet weighing less than the conventional cast base structure.

A further feature of this invention is the provision of a base construction formed by assembling cooperating stamped thin-walled metal components and characterized by an extremely simple, yet durable fastening arrangement which secures the components of the assembled base in rigid relationship, yielding a light-weight, yet rugged base construction.

Accordingly it is an object of this invention to provide an improved multi-piece base for floor lamps or the like characterized by the simplicity of its components, ease of manufacture and assembly, and ruggedness of the assembled units.

A further object of this invention is to provide an improved lamp base construction having a

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large diameter for stability of support yet being light in weight and economical to manufacture.

A particular object of this invention is to provide an improved built up lamp base construction wherein all components are manufacturable either by stamping or by automatic machinery, thus providing a lamp base particularly susceptible to manufacture in large quantities.

Another object of this invention is to provide an improved lamp base characterized by the absence of rough edges or limited area channels through which the necessary wiring must be drawn, thus expediting assembly of the complete lamp and improving the safety characteristics of the lamp.

A specific object of this invention is to provide an improved lamp base construction wherein a pair of complementary, centrally apertured base members are rigidly secured together by a nut threaded on a support post which extends through the central apertures, wherein one of the base members is flexed during the assembly operation, thereby automatically taking up looseness developed by wear and locking the assembly nut in position.

Other and further objects of the invention will be apparent to those skilled in the art from the following detailed description of the annexed sheet of drawings, which disclose a preferred embodiment of the invention.

On the drawings:

Figure 1 is a side elevational view, partly in section, of an assembled base unit for a lamp constructed in accordance with this invention;

Figure 2 is an enlarged scale, partial sectional view taken along the plane II—II of Figure 1;

Figure 3 is a side elevational view, partly in section, of the upper base member of the base construction of Figure 1;

Figure 4 is a partial top elevational view of Figure 3;

Figure 5 is a side elevational view, partly in section, of the lower base member of the lamp base construction of Figure 1; and

Figure 6 is a partial top elevational view of Figure 5.

As shown on the drawings:

The lamp base 2 shown on the drawings is conveniently and economically formed by the assembly of cooperating lower and upper base members 4 and 6 respectively. Lower base member 4 comprises a thin-walled circular member of a generally shallow cup-shaped configuration having a horizontal base portion 8, an upturned or upstanding flange or wall portion 10 and an up-

wardly bowed central portion 12. A plurality of integrally formed, depending tab portions 14 are provided in radially spaced relationship about the periphery of the horizontal portion 8 of lower base member 4. The bottom surfaces of such tab portions engage the floor or other supporting surface upon which the lamp base may rest. It should be noted that a substantial vertical space is thus provided between the plane of the bottom surfaces of the tab portions and the bottom surface of the upwardly bowed portion 12. An aperture 16 is provided in the center of the upwardly bowed portion 12. Obviously lower base members may be conveniently formed by stamping operations.

The upper base or cover member 6 is also a circular member which may also be stamped from relatively thin cross-section metal and is generally of an inverted cup-shaped configuration, having a base portion 18 and integrally formed, downwardly turned wall portion 20. The bottom end portion 22 of the wall portion 20 is displaced radially outwardly a slight additional amount to define a downwardly facing annular internal shoulder 24. In assembly, the upstanding walls 10 of the lower base member 4 are snugly receivable within the wall portion 22 of the upper base member 6 and the top surfaces of the upstanding walls 10 engage the downwardly facing shoulder 24 (Fig. 3) of the upper base member.

The central portion 26 of upper base member 6 is bent upwardly to define a downwardly opening, cup-shaped recess 28. An aperture 30 is provided in the center of upper base member 6 and aligns with the aperture 16 in the lower base member 4 when the two base members are assembled.

To assemble the upper and lower base members into a unitary structure and further to provide means for attaching the base member to the structure, such as a lamp, which the base is to support, a support post 32 is provided, comprising a hollow cylindrical member, the bottom end portion 34 of which is snugly receivable in the aligned apertures 30 and 16 of the assembled upper and lower base members. The cylindrical portion 34 of support post 32 is terminated at its upper end by a radially projecting, integrally formed flange 36 which, in assembled position, rests on the top surface of the central portion 26 of the upper base member 6. In this position of the support post 32, the bottom end of the cylindrical portion 34 projects through the aperture 16 in lower base member 4, but terminates above the horizontal plane of the bottom surfaces of the support tabs 14. The projecting end of cylindrical portion 34 is provided with threads 36 and an assembly nut 38 cooperates therewith to rigidly secure the upper and lower base members to the support post.

To further increase the rigidity of the assembly, a spacer member 40 may be provided, comprising a thin walled, cup-shaped member having a central aperture 42 through the base portion 44 thereof. The diameter of bas portion 44 of spacer member 40 is selected so as to fit snugly within the cup-shaped recess 28 formed in the upper base member, and, of course, the support post 32 projects through the aperture 42 in spacer 40. Thus the spacer member 40 is supported in substantially concentric relation to the support post 32.

The overall length of spacer member 40 may be proportioned to produce a flexing of the lower base member when assembled to the upper base member, thereby producing a more rigid assembly, and providing an automatic take-up for looseness that would ordinarily occur by wear and stretching of the metal parts after limited service. By proportioning the overall length of the spacer member 40 to be less than the distance which would exist between the bottom surface of the recess 28 and the top surface of the upwardly bowed portion 12 when the lower and upper base members are placed in unstressed assembled relationship, then when the adjusting nut 38 is tightened sufficiently to clamp the spacer member 40 between the upper and lower base members, a flexing of both base members and particularly an upward flexing of the lower base member will thus be produced. When, as illustrated in Figure 2, the bore of the spacer member 40 is of substantially greater diameter than support post 32 and the nut 38 has an effective area of engagement with the central portion 12 of the lower base member which lies within the projected area of the bore of spacer member 40, then the upward flexing of the central portion 12 produced by a tightening of the nut will result in an outward flexing of peripheral flange 10 of the lower base member 4, thus increasing the tightening of engagement between such flange and the inner surface of wall portion 22 of upper base member 6. Accordingly, not only will a more rigid and permanently rigid assembly be secured but in addition the resilient stress exerted by the stressed lower base member against the assembly nut will tend to prevent such nut from loosening inadvertently.

Any convenient construction may be utilized to secure the top portion of the support post 32 to the main frame member of the lamp or other article supported on the base. As shown in the drawings one such construction comprises providing an upstanding, reduced diameter end portion 46 on the top of support post 32 which snugly fits within the hollow tubular frame member 48 of the lamp. Preferably, the outer diameter of the shoulder on the support member 32 is made equal to the outer diameter of the frame member 48 and a ring 50 is then pressed over the assembled frame and support post. The joint thus produced may be made permanently secure by soldering or brazing.

To accomodate the customary electric wires or cord 60 which, as will be understood, pass upwardly through the hollow frame member to the light element of the lamp (not shown) an aperture 52 is provided in the downwardly depending wall portion of the upper base member 6 and a suitable flexible insulating grommet 54 is inserted therein. To provide an opening for the wire 60 into the underside of the lower base member 4 and hence in communication with the bore of the support post 32, an integral vane-like finger 56 is stamped out of the upwardly bowed portion 12 of the lower base member 4, thus providing an opening 58 through which the cord 50 may pass. In addition, the underside of the vane member 56 provides a smooth arcuate surface against which the cord may possibly abut and thus eliminates the possibility of the cord coming in contact with a sharp edge of the base structure which might injure the cord either during assembly or in later use. It is apparent that the cord may be readily threaded through the grommet 54, the opening 58 and the bore of the support post 32 without difficulty, thus expediting the assembling of the entire lamp.

From the foregoing description it is apparent that a lamp base construction in accordance

with this invention may be economically produced from stamped, light weight components and assembled into a rigid, light weight, yet durable base construction. Furthermore, the flexing or stressing of the lower base member during the assembly operation insures that the rigidity of the assembled components will be maintained through all normal service.

It will of course, be understood that various details of construction may be varied through a wide range without departing from the principles of this invention and it is, therefore, not the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claims.

I claim as my invention:

1. A base for lamps or the like comprising an inverted cup-shaped upper base member, a sheet metal lower base member having a peripheral flange engageable with the inner surfaces of the walls of said upper base member to maintain the central portions of said base members in spaced relationship, said lower base member having an integral, upwardly bowed central portion and peripherally spaced, integral, downwardly bowed tab portions adapted to engage a supporting surface, whereby the bottom surface of said upwardly bowed central portion is spaced above the supporting surface, a support post projecting downwardly through said apertures, the bottom of said support post lying above the plane of the bottom surfaces of said tab portions, a shoulder on said support post engageable with the top surface of said upper base, a hollow spacer member disposed between said upper and lower base members in surrounding relation to said support post, said spacer member having a bore diameter substantially greater than said post, and a fastener on the bottom projecting end of said support post cooperating with the bottom face of said upwardly bowed central portion of said lower base member to draw said base members together against said spacer member, said fastener engaging said central portion only over a region lying inside the projected area of the bore of said spacer member, thereby flexing said central portion upwardly and said peripheral flange outwardly.

2. The combination defined in claim 1 wherein the length of said spacer member is less than the unstressed separation of the bottom surface of said upper base member and the top surface of said upwardly bowed portion of said lower base member, and said fastener comprises a nut threadably adjustable on said projecting end of said support post.

3. A base for lamps or the like comprising an inverted cup-shaped, sheet metal, upper base member, a sheet metal lower base member having an upstanding peripheral flange engageable with the inner surface of the walls of said upper base member to maintain the central portions of said base members in spaced relationship, said upper and lower base members having central aligned apertures therein, a support post projecting downwardly through said apertures, a shoulder on said support post engageable with the top surface of said upper base member, an annular spacer member disposed between said upper and lower base members in surrounding relation to said support post, said spacer member having a bore diameter substantially greater than said post, and a fastener on the bottom end of said support post cooperating with the bottom face of the central portion of said lower base member to draw said upper and lower base members together against said spacer member, said fastener engaging said central portion only over a region lying inside the projected arc of the bore of said spacer member, thereby flexing said central portion upwardly and said peripheral flange outwardly into tighter engagement with the inner wall surface of said upper base member.

4. The combination defined in claim 3 wherein said upper base member has an integral, upwardly bowed central portion surrounding said aperture and defining a downwardly opening cylindrical recess, and said spacer comprises a thin walled, hollow cylindrical member having one end thereof snugly seating in said recess.

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