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2,279,035

LAMP FIXTURE

Filed April 22, 1940

Fig. 1.

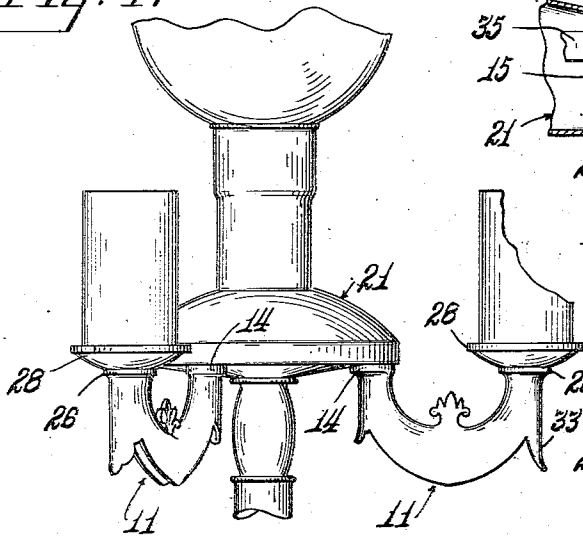


Fig. 5.

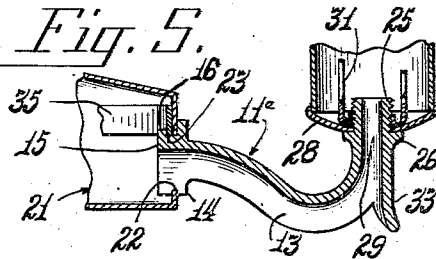


Fig. 4.

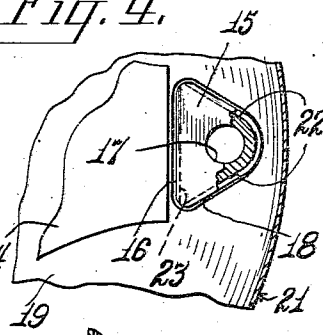


Fig. 2.

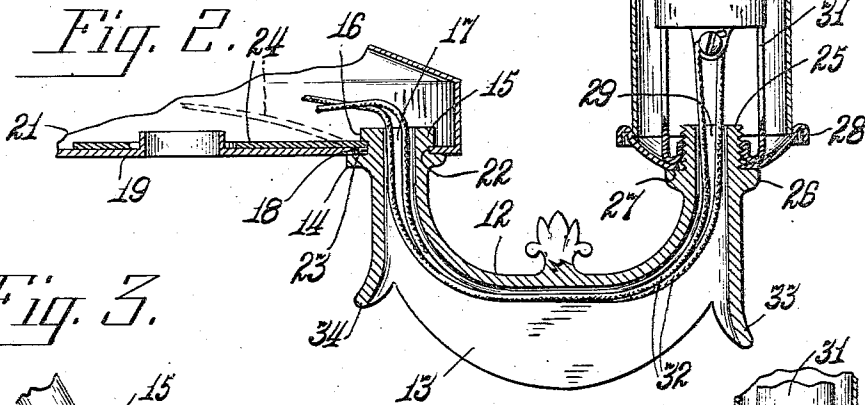


Fig. 3.

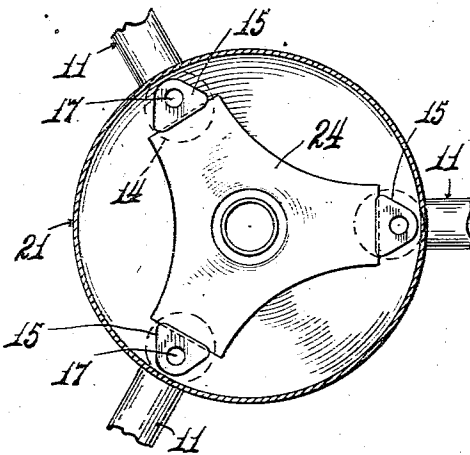
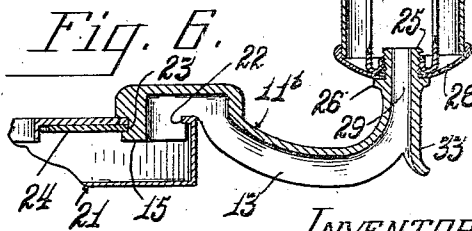


Fig. 6.



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LAMP FIXTURE

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5 Claims. (Cl. 248—342)

The invention relates to improvements in lamp fixtures and more particularly to novelly constructed one piece electric candle supports or arms.

In the manufacture of one piece die-cast channelled fixture arms of the types shown in my co-pending application Ser. No. 304,915, filed November 17, 1939, the candle cup is integral with the arm body and a separate externally threaded nipple is provided. Although that structure obviates the necessity of subsequently attaching the candle cup it constitutes expensive manufacturing. To mount a separate nipple an opening in the arm must be tapped and the nipple screwed therein. These operations involve time and expense and are entirely avoided in the present construction.

It is therefore, an object of the present invention to provide a lamp fixture with one piece radial channelled arms each embodying novel means on one arm end to be detachably secured against turning in the fixture body and an externally threaded nipple on its other end to receive a separate candle cup and socket.

Another object is to provide a cast one piece channelled fixture arm with threaded means on one end to receive a detachable candle cup and means on its other end formed to co-act with and prevent removal or turning of the arm in a mounting.

Another object is to provide a lamp fixture with detachable inexpensively constructed one piece radial arms each embodying an inverted wire-receiving channel and integral candle cup mounting means at one end.

Another object is to provide an integral externally threaded flanged nipple on one end of a channelled lamp fixture arm having integral means at its other end to co-act with a mounting to retain the arm securely in place and against turning.

The foregoing and such other objects of the invention as will become more apparent as the description proceeds will be more readily understood from a perusal of the following specification, in which reference is made to the accompanying drawing, wherein:

Fig. 1 is a fragmentary elevational view of a lamp fixture embodying the present invention.

Fig. 2 is a longitudinal sectional view taken through one of the arms and its mounting.

Fig. 3 is a horizontal sectional view taken through the fixture body showing the arm mounting.

Fig. 4 is a fragmentary horizontal sectional

view similar to Fig. 3 showing the arm in a position assumed prior to being secured to the fixture body.

Fig. 5 is a vertical sectional view similar to Fig. 2, showing another arm embodying features of the invention.

Fig. 6 is a vertical sectional view similar to Fig. 5, showing a modified form of arm.

Like numerals appearing in the description of the various forms of arms identify corresponding parts in the drawing.

As hereinbefore outlined, the present fixture arm construction is less expensive than in former types primarily because of the time involved in tapping the opening in the arm end to receive a threaded nipple. In the present instance, an externally threaded nipple is cast integral with the arm end, thus eliminating the foregoing objectionable features. Because these arms are produced in large quantities, they are die cast and casting of the threads on the integral nipple is made possible by omitting the candle cup. In assembly, a candle cup is attached at less cost than the cost of the aforementioned objectionable features.

The precise shape the arm is to take is determined by how it is to be mounted. By way of examples, the arm illustrated in Figs. 1 to 4 is arranged to be mounted on the bottom face of the lamp fixture body. The arm of Fig. 5 is arranged to be mounted on the side wall of the body and the arm of Fig. 6 is arranged to be mounted in the top wall of the body.

Referring particularly to Figs. 1 to 4 inclusive, the arm 11, best illustrated in Fig. 2, includes an intermediate substantially U-shaped body portion formed with a top wall 12 and spaced depending side walls 13. An external flange 14 is formed integrally with one arm end and said end is provided with a non-circular or substantially triangular boss 15 having one of its flat sides 16 at right angles to the longitudinal axis of said arm. A hole 17 communicating with the channel is formed while casting.

To mount the arm, the triangular boss 15 is inserted through a triangular opening 18 of substantially the same size in the bottom wall 19 of the fixture body 21. Three such arms preferably are mounted on the body. As best shown in Figs. 2 and 4 the triangular boss 15 has a shallow groove 22 in each of two of its sides which grooves are of substantially the same width as the thickness of the fixture body wall 19. A third groove 23 on the inwardly disposed side 16 of said triangular boss is substantially

wider than the two grooves 22 for a purpose to be more fully explained hereinafter.

After the boss 15 is inserted through the body opening 18 sufficiently to bring the flange 14 snugly against the bottom face thereof, a bowed substantially triangularly shaped washer 24 is arranged in the body. The bowed triangular washer is positioned, as shown, with one of its straight edges in radial alignment with the inwardly disposed side 16 of each boss and the entire partial assembly preferably is placed in a power press. Upon applying pressure to the triangular washer, said washer is flattened downwardly tightly against the inside face of the body wall 19, thus expanding to move its straight edges outwardly, one into frictional engagement with each groove 23. This operation slides each arm outwardly radially and causes the shallow grooves 22 on the outwardly disposed sides of the bosses to engage around the associated marginal edges of the respective openings 18, thus securely anchoring each arm to the body and preventing its being turned in its mounting. Obviously, a broken or damaged arm may be removed readily by prying or otherwise urging the center portion of the triangular washer 24 upwardly to draw its edges out of engagement with the respective grooves.

The other or free end of each arm terminates in an integral externally threaded nipple 25 having an external annular flange 26 at its lower end providing an annular shoulder 27 to support a separate candle cup 28. The external threads and a hole 29 communicating with the channel are formed while casting. A socket 31 is screwed onto the externally threaded nipple 25 and tightly secures the separate candle cup in place.

Both apertured ends of the cast arm admit electric wires 32. As shown, the wires lie snugly within the channelled body portion and are adequately concealed by the side walls 13 and by integral depending end walls 33 and 34.

Obviously, arms constructed as described are decidedly less expensive to manufacture than those including separate nipples on their free end. It is also apparent that the arms are held rigidly in the fixture body against any turning movement although they may be readily removed for replacement.

The substantially straight or L-shaped arm 11a shown in Fig. 5 has its ends disposed at right angles to each other and is adapted to be mounted on a vertical side wall of the fixture body 21. The triangular boss 15 is formed open on its bottom to facilitate withdrawal of the core and said arm is anchored in place preferably by a sheet metal ring 35 which is pressed downwardly tightly into frictional engagement with the groove 23 on the upper side 16 of its boss. This arm, which includes the integral externally threaded nipple 25 requires but one depending wall portion 33 to conceal wires in the channelled body.

The substantially S shaped arm 11b shown in Fig. 6 is structurally similar to the arm previously described except that in this instance the channelled body has its two ends extending in opposite directions so that it may be mounted on the top wall of the fixture body 21. In this form, the substantially triangularly shaped boss 15 also is open on one side to facilitate withdrawal of the core and it is necessary to provide a depending wall portion 33 on the arm end having the integral externally threaded nipple 25.

Although exemplary forms of the improved one piece cast arm have been illustrated and described it is to be understood that the disclosure is not restrictive but is to embody such variations or modifications as will fall within the spirit of the invention and the scope of the appended claims.

I claim:

1. As an article of manufacture, a fixture arm including a body portion providing an inverted channel, an integral, externally threaded nipple on one end of the arm in communication with the channel and having an annular external shoulder, the other arm end having a tubular opening also in communication with the channel, and a triangular boss grooved on at least one face integral with said other end of the arm, the triangular boss being adapted to be fitted into a triangular opening in the wall of a fixture body so that when said boss is shifted to engage an edge of said wall opening in said groove to secure the arm to the wall the triangular boss holds the arm against turning relative to the fixture body.

2. A lamp fixture comprising, in combination, a fixture body and radial fixture arms, said arms each including an intermediate body portion providing an inverted wire-receiving channel, an integral, externally threaded nipple at one end of said arm in communication with said channel, an external annular flange integral with the body portion below said nipple, an integral triangularly shaped boss on the other end of said body and having a passageway communicating with said channel, said bosses each having at least one surface grooved, an external shoulder on the body adjacent to said groove, the fixture body being provided with a plurality of openings corresponding in shape to that of the arm bosses, said bosses each extending through a body opening, and means in said fixture body co-acting with said bosses to urge the bosses laterally and engage said grooves over the fixture body wall to secure and prevent sagging of the arms.

3. A lamp fixture comprising, in combination, a fixture body and radially extending arms, said arms each including an intermediate body portion providing an inverted wire-receiving channel, an integral, externally threaded nipple on one arm end in communication with the arm channel and having an external shoulder at its base, an integral triangular boss having a shoulder on the other arm end having an opening in communication with the arm channel, and a recess in each face of said boss, the fixture body being provided with a plurality of substantially triangular openings, the bosses each extending through a body opening and secured to the body by means co-acting with one recess in each boss, the other recesses receiving the wall of said body adjacent said openings to secure the arms and prevent their turning in said body.

4. A lamp fixture comprising, in combination, a fixture body and radial fixture arms, said arms each including a body portion providing an inverted wire receiving channel, a nipple integral with one arm end and in communication with said channel, a fitting on the other arm end having a passageway communicating with said channel, said fitting being inserted transversely through an opening in the wall of said fixture body and having a groove therein adapted to receive an edge of said opening, and expansible means engageable with said fitting for urging the arm laterally towards said edge to retain the fit-

ting in said opening and secure the arm to the fixture body.

5. A lamp fixture comprising, in combination, a fixture body and radial fixture arms, said arms each including a body portion providing an inverted wire receiving channel, a nipple integral with one arm end and in communication with said channel, a fitting on the other arm end having a passageway communicating with said

channel, said fitting being inserted transversely through an opening in the wall of said fixture body and having a groove therein adapted to receive an edge of said opening, and common means for urging the arms laterally towards the respective edges to retain the fittings in said openings and secure the arms to the fixture body.

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