

Nov. 15, 1966

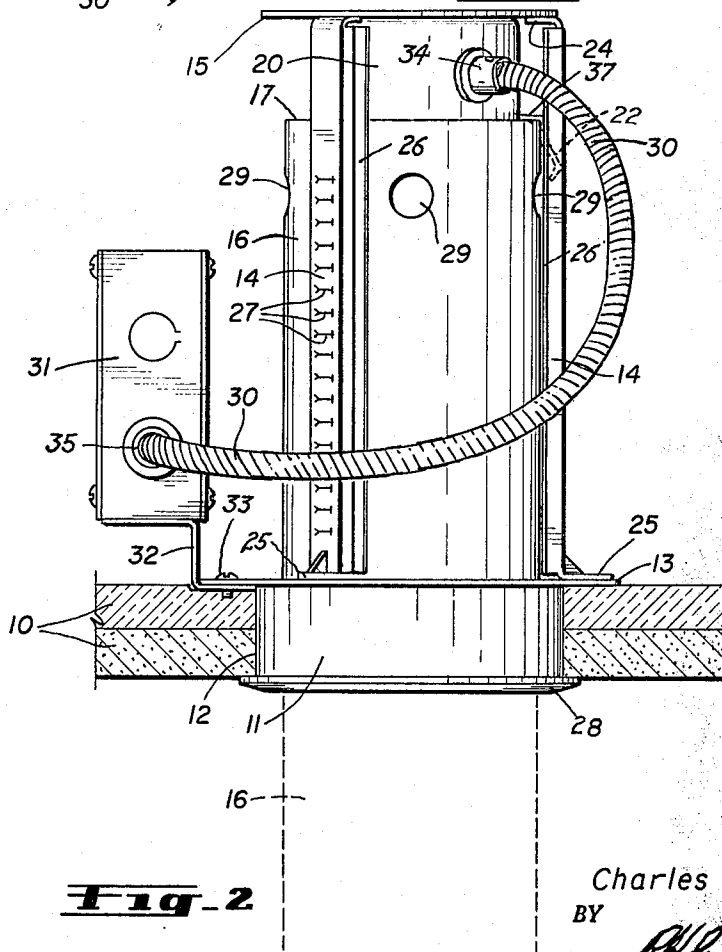
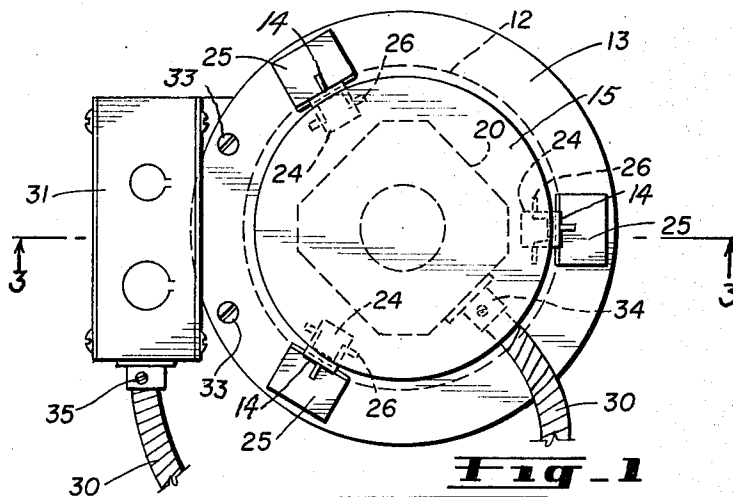
C. S. BROWN

3,286,090

ADJUSTABLE CEILING FIXTURES

Filed Aug. 10, 1964

2 Sheets-Sheet 1



INVENTOR.
Charles S. Brown
BY *R. H. Hallworth*
ATTORNEY

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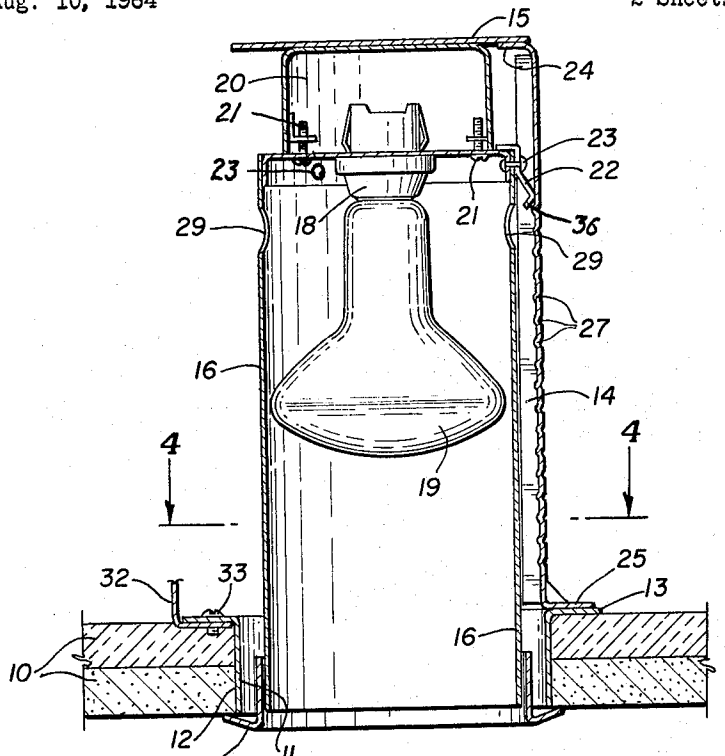


Fig. 3

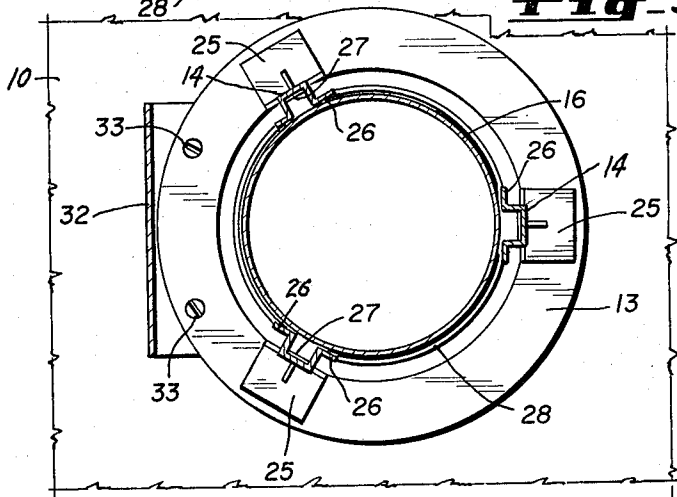


Fig. 4

INVENTOR.
Charles S. Brown
BY

Att. Palbreath
ATTORNEY

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3,286,090

ADJUSTABLE CEILING FIXTURES

Charles S. Brown, Denver, Colo., assignor to Sechrist Manufacturing Co., Denver, Colo.
Filed Aug. 10, 1964, Ser. No. 388,620
5 Claims. (Cl. 240-78)

This invention relates to a ceiling fixture for an electric lamp bulb and more particularly to a fixture of the type known as a "down light" which is inset in the ceiling for projecting a light beam directly downwardly.

The principal object of the invention is to provide a fixture of this type in which the lamp holder can be quickly and easily adjusted vertically from a fully recessed position, flush with the ceiling, to a selected semi-recessed position below the ceiling.

Another object is to so construct the fixture that the lamp holder can be adjusted or removed and replaced by hand and without the use of tools.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention, reference is made to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

FIG. 1 is a top view of the adjustable ceiling fixture of this invention;

FIG. 2 is a side elevational view thereof illustrating it in place in a conventional ceiling;

FIG. 3 is a vertical section taken on the line 3-3, FIG. 1; and

FIG. 4 is a cross section looking downwardly on the line 4-4, FIG. 1.

In the drawings, the ceiling in which the improved ceiling fixture is installed is indicated in cross section at 10. The improved fixture employs a permanent stationary frame including a circular horizontal plaster ring 11, adapted to fit snugly within a circular opening 12 in the ceiling 10 and provided with a top flange 13 which rests upon the ceiling and from which three vertical channel track members 14 arise to support a circular horizontal top disc 15 concentrically over the ring 11.

The channel track members 14 serve to space, support and guide a cylindrical lamp shell 16 within the plaster ring 11. The lamp shell 16 is open at the bottom and is closed at the top by means of a fixed, circular, downwardly flanged top plate 17 permanently affixed therein. Ventilation openings 29 are formed in the lamp shell, adjacent the top thereof to allow escape of the lamp-heated air. The top plate 17 has an axially positioned opening in which a porcelain socket 18 is mounted to support a sealed beam lamp bulb 19 within the lamp shell 16. The socket 18 is covered by a conventional outlet box 20, the open side of which is secured to the top plate 17 by means of suitable attachment screws 21.

Three spring clips 22 are secured about the top of the lamp shell 16 by means of rivets 23 which extend through the shell and through the flange of the top plate 17. The spring clips extend downwardly and outwardly from the rivets 23 into sliding contact with the three channel track members 14. The track members 14 are stamped from sheet metal or otherwise formed to provide an angularly turned upper extremity 24 which is welded or otherwise secured beneath the top disc 15 and an angularly turned

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foot portion 25 which is welded or otherwise secured on the flange 13 of the plaster ring.

The channel track members form inwardly facing guide channels for the spring clips 22 as the lamp shell 16 is moved upwardly and downwardly. The metal at each side of each guide channel extends outwardly to form two oppositely formed side flaps 26 on the channels to facilitate the initial insertion of the spring clips 22 therein. The backs of the track channels have ratchet-like indentations 27 in vertically spaced relation, such as horizontally extending corrugations, against which the spring clips selectively rest to support the lamp shell 16 at any desired elevation. The upper extremities of the spring clips are turned to overlap the top of the shell as shown at 37. The lower extremities of the spring clips 22 are turned away from the indentations, as indicated at 36, so that the shell may be manually pulled downward with the spring clips clicking over the corrugations.

The combined vertical length of the lamp shell 16, the outlet box 20 and the channel track members 14 is such that when the outlet box 20 is in contact with the top disc 15, the lower edge of the lamp shell 16 will be flush with the bottom of the plaster ring 11. An ornamental finish ring 28 is frictionally slipped over and about the lower edge of the lamp shell 16 and extends radially outward therefrom to close the plaster ring opening 12 in the ceiling.

The current is supplied to the lamp bulb through a flexible armored conductor 30 extending from a conventional flex connector 34 on the outlet box 20 at the top of the lamp shell to a similar conventional flex connector 35 on a junction box 31 supported on a mounting bracket 32 which is attached beneath the flange 13 of the plaster ring by means of suitable attachment screws 33. The conductor 30 is sufficiently long to allow the lamp shell to be completely withdrawn from the ceiling for inspection or repair.

To replace the lamp shell, it is only necessary to align the spring clips 22 with the channels in the channel track members 14 and force the shell upwardly to the desired position where it will be supported by the expansion of the spring clips against the indentations 27 in the channels of the track members 14. The most used position will be fully recessed, as shown in FIG. 3, but it may be allowed to partially project as shown in broken line in FIG. 2.

It is preferred to form the shell 16 of 4" O.D. aluminum tubing having a length of 8 $\frac{7}{16}$ " and having an anodized finish. The remaining parts are preferably finished with baked white enamel or are cadmium plated.

While a specific form of the invention has been described and illustrated herein, it is to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

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

1. A ceiling fixture for an electric lamp bulb comprising: a plaster ring adapted to be inserted in an opening in a ceiling, a tubular lamp enclosing shell inserted upwardly through said plaster ring; vertical track members mounted on and arising from said plaster ring and surrounding said tubular shell; spring clips secured at their upper extremities to the upper extremity of said shell and extending downwardly and outwardly therefrom into engagement with said track members, said track members being provided with a vertical slide channel for receiving and guiding said spring clips vertically as said shell is moved vertically

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2. A ceiling fixture as described in claim 1 having spaced protuberances in said slide channels over which said spring clips travel to resist vertical movement thereof.

3. A ceiling fixture as described in claim 2 in which the lower extremity of each spring clip has an inwardly turned portion which allows said clip to move over said protuberances as said shell is forced downwardly. 5

4. A ceiling fixture as described in claim 2 having a finish ring slidably surrounding said shell and having a larger diameter than said plaster ring and adapted to close the opening in said ceiling. 10

5. A ceiling fixture as described in claim 4 having a socket for said lamp mounted in said shell, a junction box supported from said plaster ring and a flexible electrical conductor connected between said junction box and said socket for furnishing electric current to said lamp. 15

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NORTON ANSHER, *Primary Examiner.*

C. CHALMERS LOGAN, II, *Assistant Examiner.*