ABSTRACT
An adapter for a recess can. The adapter includes a planar surface having two plate extensions extending perpendicular from the planar surface. The plate extensions are sized to fit flush against a wall of a recess can. In addition, the planar surface is sized to fit over an interior of the recess can and includes a central opening. The planar surface is configured for attaching to the wall of the recess can by inserting screws through the first and second plates and the wall of the recess can.
FIG. 9
(Prior Art)
RECESS CAN ADAPTER

RELATED APPLICATIONS


BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention
[0003] This invention relates to support assemblies. Specifically, and not by way of limitation, the present invention relates to an adapter for a recess can in a recessed ceiling configuration.
[0004] 1. Description of the Related Art
[0005] In many homes, recessed ceiling lighting fixtures are very common. A light bulb is located in a “housing” or “can” where its lower portion is flush or slightly below the ceiling. These lighting fixtures are also known as “can fixtures” or “recess cans”.
[0006] FIG. 1 illustrates an existing recess lighting fixture 10. The fixture includes a circular can 12 and a socket 14. The can includes a circular wall 16 and a rim 18 lying flush against a ceiling 20. A light bulb is typically screwed into the socket 14 which is coupled to wiring leading to electrical power source.
[0007] However, these existing recess lighting fixtures suffer from some disadvantages. Because of the structure of the cans, other fixtures are unable to be hung from the cans. For example, fan light fixtures are not able to be hung from the recess cans as they do not have adequate support from the recess cans. These recess lighting fixtures lack a flexibility to support other lighting fixtures such as fan lighting fixtures, hanging lighting fixtures, etc.
[0008] Thus, it would be advantageous to have an adapter which enables existing recess cans to be modified to support other lighting fixtures. It is an object of the present invention to provide such an apparatus.

SUMMARY OF THE INVENTION

[0009] In one aspect, the present invention is an adapter for a recess can. The adapter includes a planar surface having two plate extensions extending perpendicular from the planar surface. The plate extensions are sized to fit flush against a wall of a recess can. In addition, the planar surface is sized to fit over an interior of the recess can and includes a central opening. The planar surface is configured for attaching to the wall of the recess can by inserting screws through the first and second plates and the wall of the recess can.
[0010] In another embodiment, the present invention is a recess can system for modifying an existing recess can. The system includes a recess can having an interior wall and a socket and an adapter. The adapter includes a planar surface having two plate extensions extending perpendicular from the planar surface. The plate extensions are sized to fit flush against the wall of the recess can. In addition, the planar surface includes a central opening and is sized to fit over an interior of the recess can. The planar surface is configured for attaching to the wall of the recess can,

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. 1 (prior art) illustrates an existing recess lighting fixture;
[0012] FIG. 2 is a side view of an adapter plate in one embodiment of the present invention;
[0013] FIG. 3 is a top view of the adapter plate for a four inch can;
[0014] FIG. 4 is a top view of the adapter plate for a five inch can;
[0015] FIG. 5 is a top view of the adapter plate for a six inch can;
[0016] FIG. 6 is a top view of the six inch adapter plate having a plurality of knockouts;
[0017] FIG. 7 is a front view of the adapter plate positioned near the recess can;
[0018] FIG. 8 is a bottom view of the adapter plate connected to the recess can using a drill;
[0019] FIG. 9 (prior art) is a top view of a light fixture bracket;
[0020] FIG. 10 is a bottom view of the light fixture bracket of FIG. 9 being affixed to the adapter plate; and
[0021] FIG. 11 is a top view of the adapter plate removed from the recess can.

DESCRIPTION OF THE INVENTION

[0022] The present invention is an adapter for a recess can lighting fixture to enable support of other lighting fixtures. The present invention includes an adapter plate configured for fitting a can of a specific size. FIG. 2 is a side view of an adapter plate 100 in one embodiment of the present invention. The adapter plate includes a circular planar surface 102 having an opening 104. On opposing sides of the opening are plate extensions 106 and 108. The plate extensions are sized and spaced for fitting flush against the circular wall 16 of the recess can 12. In the preferred embodiment of the present invention, the adapter plate is constructed of a rigid material, such as metal.

[0023] The single adapter plate is sized and shaped to fit recess cans of specific sizes. For example, one adapter plate may be for a four inch can. FIG. 3 is a top view of the adapter plate 100 for a four inch can. FIG. 4 is a top view of the adapter plate 100 for a five inch can. FIG. 5 is a top view of the adapter plate 100 for a six inch can. FIG. 6 is a top view of the six inch adapter plate 100 having a plurality of knockouts 120. The knockouts are positioned adjacent the plate extensions 106 near the edge of the opening 104. The knockouts are weakened pieces of material, and in this case, on the planar surface 102, which may be easily removed. In one embodiment, the knockouts are rectangular in shape and may be removed with pliers. By removing the knockouts from the planar surface, spaces are created which may be used when installing the adapter plate over a can. The knockouts are particularly helpful when installing the adapter plate in larger cans, such as six inch cans.

[0024] FIG. 7 is a front view of the adapter plate 100 positioned near the recess can 12. Wires 122 and 124 may be positioned through the opening 104. The wires 122 and 124 may be attached to the socket 14 using a socket adapter 126.

[0025] FIG. 8 is a bottom view of the adapter plate connected to the recess can 12 using a drill 130. Screws 132 may be positioned through holes 134 (see FIGS. 2-4) on the plate extensions 106 and 108 and drilled into the wall 16. In the preferred embodiment of the present invention, the screws are self tapping or self drilling screws to affix the plate to the can 12.

[0026] FIG. 9 is a top view of an existing light fixture bracket 141. The bracket 140 includes a central opening 142
and two opposing slots 144 and 146. FIG. 10 is a bottom view of the light fixture bracket of FIG. 9 being affixed to the adapter plate 100. Screws 152 may be used for affixing the bracket to the adapter through the slots 144 and 146 to the openings 150 (see FIGS. 2-5) of the adapter plate. A light fixture may then be affixed to the light fixture bracket through the slots 144 and 146 or through central opening 142.

[0027] FIG. 11 is a top view of the adapter plate removed from the recess can 12. The adapter plate may include screws 160 and 162 for attaching grounding wires 164 and 166 to a top surface 168 of the adapter plate. The grounding wires may be affixed to the adapter prior to installation of the adapter to the can.

[0028] With reference to FIGS. 1-11, the operation of the adapter 100 will now be explained. The socket adapter 126 circularly surrounds the recessed lighting can 10. The adapter plate 144 is positioned against the can. The correct size adapter is used for the appropriate can size (e.g., 4 inch, 5 inch, etc.). If necessary (e.g., for the larger size cans), knockouts 120 may be removed from the adapter plate prior to positioning the plate against the can. Additionally, prior to installation of the adapter plate, the grounding wires 164 and 166 may be attached to the screws 160 and 162. When desired, when the adapter plate is properly positioned against the recess can 12, a user may attach the adapter plate to the wall 16 of the recess can 12. Next, the fixture bracket 140 is attached to the bottom of the adapter plate 100 using screws 152. Additionally, a decorative cover (not shown) may be used to cover the adapter plate as desired. Any fixture, such as a fan light fixture may then be affixed to the fixture bracket. The fixture may be affixed through the slots 144 and 146 or through central opening 142. Although the present invention discussing using the existing light fixture bracket 140 shown in FIG. 9, the present invention may be utilized with any light fixture bracket and is not limited to the size, form, or configuration illustrated in FIG. 9.

[0029] The present invention provides a system for enabling recessed lighting cans to be utilized for holding other types of light and fan fixtures. The present invention is easy to install and enables the user to select different fixtures for attachment.

[0030] While the present invention is described herein with reference to illustrative embodiments for particular applications, it should be understood that the invention is not limited thereto. Those having ordinary skill in the art and access to the teachings provided herein will recognize additional modifications, applications, and embodiments within the scope thereof and additional fields in which the present invention would be of significant utility.

[0031] Thus, the present invention has been described herein with reference to a particular embodiment for a particular having ordinary skill in the art and access to the present teachings will recognize additional modifications, applications, and embodiments within the scope thereof.

[0032] It is therefore intended by the appended claims to cover any and all such applications, modifications and embodiments within the scope of the present invention.

What is claimed is:
1. An adapter for a recess can, the adapter comprising:
   a planar surface, the planar surface having a first plate extension and a second opposing plate extension extending perpendicular from the planar surface;

wherein the first and second plate extensions are sized to fit flush against a wall of a recess can;
wherein the planar surface includes a central opening;
wherein the planar surface is sized to fit over an interior of the recess can;
wherein the planar surface is configured for attaching to the wall of the recess can.

2. The adapter according to claim 1 wherein the first plate extension and the second plate extension each are configured to be attached to the wall of the recess can by inserting screws through the first and second plates and the wall of the recess can.

3. The adapter according to claim 2 wherein the first and second plate extensions each includes holes sized and shaped to fit drilling screws for attaching the planar surface to the recess can.

4. The adapter according to claim 1 wherein the planar surface is circular.

5. The adapter according to claim 1 wherein the planar surface includes a plurality of knockouts capable of being removed from the circular planar surface.

6. The adapter according to claim 5 wherein each knockout enables a space to be created.

7. The adapter according to claim 1 further comprising a light fixture bracket having a mechanism for affixing the light fixture bracket to the planar surface, the light, fixture bracket supporting a light fixture.

8. The adapter according to claim 7 wherein the planar surface includes at least one hole for affixing the light fixture bracket to the planar surface with a screw.

9. The adapter according to claim 1 wherein the planar surface includes a grounding wire affixed to the planar surface.

10. A recess can system for modifying an existing recess can, the system comprising:
    a recess can having an interior wall and a socket; and
    an adapter comprising:
    a planar surface, the planar surface having a first plate extension and a second opposing plate extension extending perpendicular from the planar surface;
    wherein the first and second plate extensions are sized to fit flush against the wall of the recess can;
    wherein the planar surface includes a central opening;
    wherein the planar surface is sized to fit over an interior of the recess can;
    wherein the planar surface is configured for attaching to the wall of the recess can.

11. The system according to claim 10 wherein the first plate extension and the second plate extension each are configured to be attached to the wall of the recess can by inserting screws through the first and second plates and the wall of the recess can.

12. The system according to claim 11 wherein the first and second plate extensions each includes holes sized and shaped to fit drilling screws for attaching the planar surface to the recess can.

13. The system according to claim 10 wherein the planar surface is circular.

14. The system according to claim 10 wherein the planar surface includes a plurality of knockouts capable of being removed from the circular planar surface.

15. The system according to claim 14 wherein each knockout enables a space to be created.
16. The system according to claim 10 further comprising a light fixture bracket having a mechanism for affixing the light fixture bracket to the planar surface, the light fixture bracket supporting a light fixture.

17. The system according to claim 16 wherein the planar surface includes at least one hole for affixing the light fixture bracket to the planar surface with a screw.

18. The system according to claim 10 wherein the planar surface includes a grounding wire affixed to the planar surface.

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