

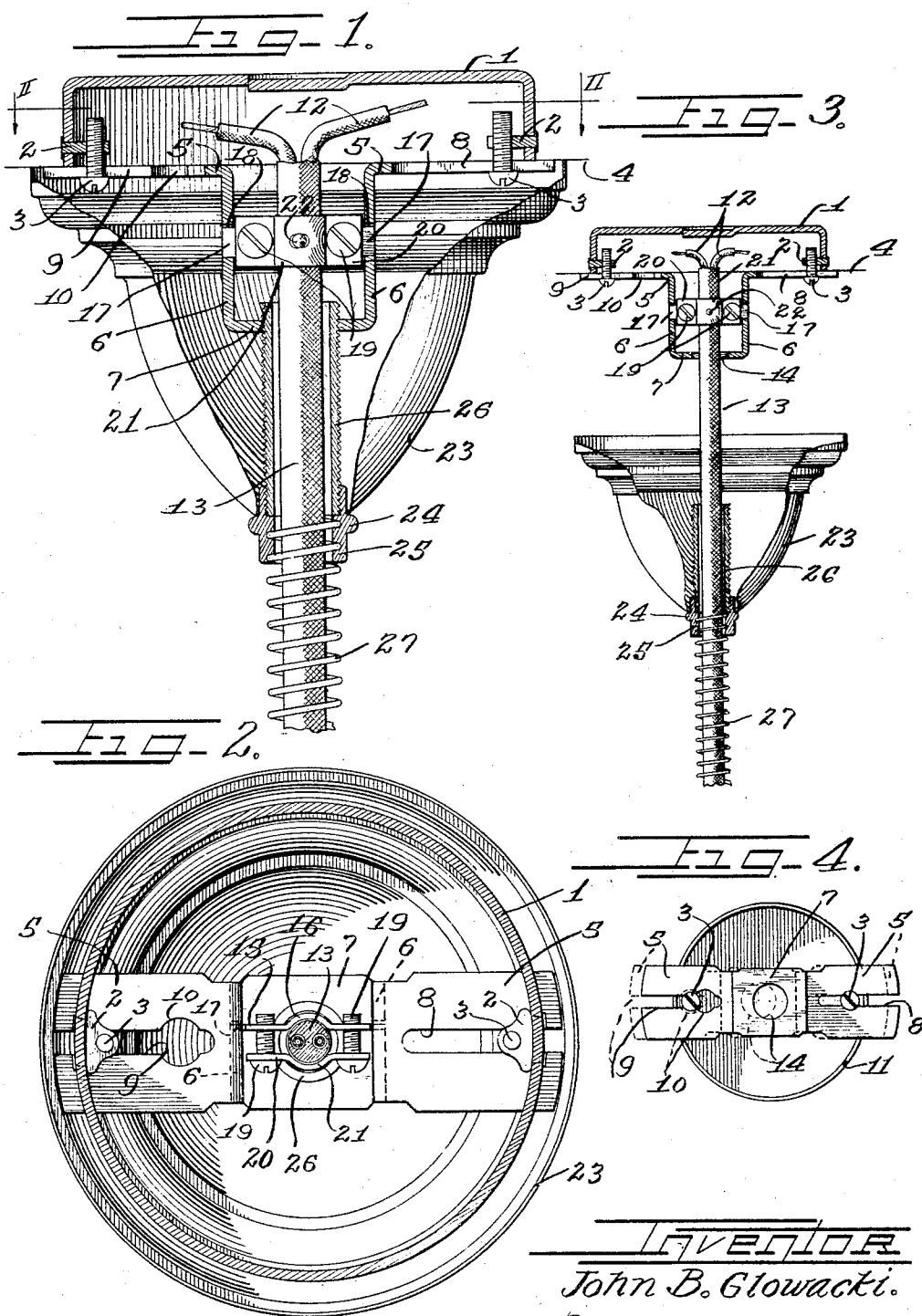
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DROP CORD AND CANOPY SUPPORTING BRIDGE

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DROP CORD AND CANOPY SUPPORTING BRIDGE

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This invention relates to an improved type of electrical fixture bridge and more particularly to a bridge which is so constructed that it is readily attachable to standard outlet boxes of different sizes and in addition is equipped to support a drop cord and a canopy allowing the drop cord to project downwardly through the adjustable canopy supporting means which is provided with a suitable guard for the protection of the drop cord.

It is an object of this invention to provide an improved type of fixture supporting bridge adaptable to fit standard outlet boxes of different sizes and having the middle portion thereof so constructed and equipped to permit an interfitted drop cord and canopy to be independently supported in position.

It is also an object of this invention to provide an improved type of supporting bridge embracing a middle section and extension arms with said arms being provided with suitable openings to permit the bridge to be removably secured to standard outlet boxes of different sizes, while the middle section of the bridge is equipped with a drop cord gripping device and with an adjustable canopy supporting unit to which a drop cord guard is removably connected.

It is a further object of this invention to provide a fixture supporting bridge attachable to standard outlet boxes of different sizes with said bridge having an intermediate section having a drop cord gripping unit bridged thereacross above the bottom of said intermediate section to permit adjustment of a canopy supporting unit adjustable in the bottom of said intermediate section after the supporting bridge has been mounted in position and the drop cord wires have been connected to the terminal wires in the outlet box.

It is furthermore an object of this invention to provide a drop cord supporting bridge constructed to fit standard outlet boxes of different sizes and furthermore having a threaded opening therein for the reception of a threaded stem secured in a canopy supporting coupler engaged over the drop cord and having removably engaged therewith a drop cord guard device whereby a canopy may be rapidly and conveniently supported

in position to enclose the supporting bridge after the drop cord wires have been connected to the terminal wires in the outlet box.

It is an important object of this invention to provide an improved type of drop cord and canopy supporting bridge having openings therein to permit the bridge to be fitted to standard outlet boxes of different sizes, said bridge having an apertured depressed portion for supporting a drop cord gripping device bridged across the depressed portion thereof above the lower end of the depressed portion to permit adjustment of a threaded stem and canopy supporting coupler and drop cord guard thereby producing a fixture bridge of a universal type carrying a drop cord gripping means which is so positioned that it does not interfere with the adjustable mounting of a canopy supporting unit adjustably engaged in the bridge.

Other and further important objects of this invention will be apparent from the disclosures in the specification and the accompanying drawing.

The invention (in a preferred form) is illustrated in the drawing and hereinafter more fully described.

On the drawing:

Figure 1 is a fragmentary sectional view of an outlet box and supporting bridge having connected therewith a drop cord gripping means and a canopy supporting unit illustrating the various mechanisms in assembled relation to support a drop cord and a canopy in place.

Figure 2 is a horizontal sectional view taken on line II—II of Figure 1 with the drop cord illustrated in section.

Figure 3 is a reduced vertical sectional view of the outlet box and supporting bridge showing the drop cord gripped in position and having slidably engaged thereon below the bridge a canopy together with a canopy supporting unit and a drop cord guard in lowered position prior to the supporting of the canopy by the supporting unit when raised into the position illustrated in Figure 1.

Figure 4 is a bottom plan view of the outlet box of a small standard size having re-

movably engaged thereon a supporting bridge, the operation and mounting of which are illustrated in dotted lines.

As shown on the drawing:

5 The reference numeral 1 indicates an outlet box of one of the larger standard sizes, namely, a four-inch diameter outlet box which is usually of a shallow construction as illustrated in Figure 1 and is provided with diametrically opposite lugs 2 having threaded openings therein for the support of retaining or supporting screws 3. The ceiling or wall line is represented by the reference numeral 4.

10 The present invention consists of a supporting device for a drop cord and a canopy and embodies a supporting bridge comprising a pair of end plates or arms 5 which are integrally formed on opposite sides of a middle or intermediate U-shaped section or socket comprising side walls 6 connected at their lower ends by a bottom wall 7. The arms or wing plates 5 project at substantially right angles to the side walls 6 of the intermediate U-shaped section and each of said arms or plates 5 is provided with an arc-shaped or rounded end. One of the arms or extensions 5 is provided with a straight longitudinal slot 8 which opens at its outer end through the end edge of the arm. The other arm or extension plate 5 is provided with a longitudinally positioned slot 9 the outer end of which opens through the end edge of the arm while the inner portion of the slot 9 is provided with an enlarged opening 10. The supporting bridge is provided with the longitudinally positioned slots 8 and 9 for the purpose of permitting the bridge to be readily adapted to fit standard outlet boxes of different diameters or sizes, thereby obviating the necessity of providing supporting bridges of different sizes to fit the different sized standard outlet boxes. To mount the supporting bridge upon the screws 3 of a standard outlet box of the four-inch diameter size, it is only necessary to engage the open end of either of the slots 8 or 9 around one of the screw shanks 3 and then slide the bridge to one side to permit the opposite open end of the other bridge slot to be slidably engaged over the shank portion of the opposite supporting screw 3. Attention is also called to the fact that when desired the enlarged portion 10 of the slot 9 may be engaged over the head of one of the supporting screws 3 after which the supporting bridge may be moved diametrically with respect to the outlet box to permit the open end of the slot 8 to pass around the shank of the opposite supporting screw. For the purpose of mounting the supporting bridge on a large standard size four-inch diameter outlet box, it will be noted that the bridge may be mounted without the use of the enlarged opening 10 in the slot 9 or the en-

larged opening 10 may be used as hereinbefore described. The enlarged portion 10 of the slot 9 is primarily provided for the purpose of permitting a standard or single sized supporting bridge to be conveniently mounted on a small standard sized outlet box of 3 1/4-inch diameter similar to the arrangement illustrated in Figure 4. To mount the supporting bridge on the screws 3 of a small standard sized outlet box 11, as illustrated in Figure 4, the open end of the slot 8 of the bridge is engaged around the shank portion of one of the screws 3 and the arm containing the slot 8 is then slidably moved with respect to the screw until the bridge is in the dotted line position illustrated in Figure 4 wherein the enlarged portion 10 of the slot 9 registers with the head of the second screw 3 thereby permitting the bridge to be moved from the dotted line position of Figure 4 into the full line position. The retaining screws 3 are now tightened to hold the supporting bridge clamped in a proper position supported underneath the outlet box 11.

It will thus be noted that the improved supporting bridge has the arms thereof apertured or slotted to permit the bridge to be removably and conveniently engaged on the supporting screws of standard outlet boxes of different sizes or diameters within the length of the supporting bridge.

For the purpose of supporting and holding a drop cord in position to permit the upper end of the drop cord wires or conductors 12 to be connected with the terminal wires in the outlet box 1, the drop cord 13 is adapted to be projected upwardly through a threaded opening 14 in the bottom plate 7 of the bridge and then be projected through a drop cord gripping or supporting means embracing a main gripping plate or bracket 15 having the middle portion thereof deflected or rounded to form a pocket or socket section 16 adapted to engage around one side of the drop cord. Integrally formed on the ends of the main plate or bracket 15 are lugs or tongues 17 which project into openings 18 provided in the side plates 6 of the U-shaped middle section of the bridge. The plate or bracket 15 is provided with threaded apertures for adjustably receiving clamping screws 19. The clamping screws 19 project through openings provided in an auxiliary gripping or clamping plate or bracket 20 the middle portion of which is deflected to provide a rounded socket section 21 to permit the bracket to fit around the drop cord. The socket portions 16 and 21 forming part of the drop cord gripping bracket or plate are provided with openings 22 to permit portions of the casing or covering of the drop cord 13 to project into the openings 22 when the drop cord is gripped between the gripping bracket or plate by means of the clamping screws 19.

It will be noted that the drop cord grip-

ping means is bridged across the space provided between the side arms 6 of the middle or U-shaped section of the supporting bridge a considerable distance above the bottom plate 7 of said intermediate or auxiliary section of the bridge. The drop cord 13 is projected through the bridge and between the clamping plates 15 and 20 a distance sufficient to permit the wires 12 of the drop cord to be conveniently connected with the terminal wires in the outlet box 1. When the clamping screws 19 are tightened, the drop cord is gripped or clamped between the sections 16 and 21 of the gripping brackets or plates and is held thereby against rotation or sliding movement with respect to the supporting bridge.

The improved supporting bridge in addition to providing a gripping means for the drop cord 13 is adapted to serve as a support for a canopy 23. The canopy is adapted to be engaged over the drop cord with the lower open end of the canopy seated upon the peripheral bead or flange 24 of a canopy supporting coupler or sleeve 25. The upper portion of the coupler 25 is internally threaded and has threaded or secured therein the lower end of an externally threaded stem 26. The lower portion of the coupler 25 is internally threaded or provided with a spiral groove to removably receive the upper end of a drop cord protecting guard spring 27. After the supporting bridge with the drop cord clamped therein has been attached to the bottom of an outlet box, the coupler 25 with the canopy 23 resting thereon is pushed upwardly on the drop cord 13 until the upper end of the threaded stem 26 registers with the threaded opening 14. By rotating the coupler 25 the upper end of the threaded stem 26 is threaded through the threaded opening 14 of the lower plate 7 of the bridge thereby gradually raising the canopy until the upper open end thereof is brought into seating contact against the ceiling or wall 4 as clearly illustrated in Figure 1. It will be noted that the supporting bridge supports the drop cord and in addition supports the coupler 25 on which the canopy 23 is seated. The coupler 25 in addition to supporting the canopy 23 and the supporting stem 26 also supports the upper end of the coiled guard spring 27 which engages around the drop cord where it projects through the coupler thereby preventing the drop cord from being sharply bent or brought into contact with the lower edges of the coupler 25. The drop cord is thus protected or guarded by the coiled spring 27.

Attention is called to the fact that the improved supporting bridge may be removably supported in position on standard outlet boxes of different sizes and may have a drop cord secured in the gripping means in addition to having the canopy supporting mem-

bers associated with the middle section of the supporting bridge to permit the drop cord and canopy to be rapidly and conveniently mounted in position supported on an outlet box by the use of a screw driver and perhaps the additional use of a knife for stripping the wires 12 of the drop cord if the same have not already been stripped. The supporting bridge with the drop cord projecting between the gripping or clamping plates is first raised into contact with the bottom of an outlet box and the drop cord is adjusted to permit a sufficient length thereof to project into the outlet box to permit proper connection of the wires. With the drop cord adjusted with respect to the clamping bracket the clamping screws 19 are tightened thereby causing the drop cord to be tightly gripped or clamped between the sections 16 and 21 of the gripper plates or brackets. When the screws 19 are tightened, portions of the drop cord covering bulge into the gripping plate openings 22 thereby causing the drop cord to be held against rotation between the clamping or gripping brackets or plates. With the drop cord clamped in position and supported by the supporting bridge, the bridge may be engaged with the outlet box screws 3 by means of the elongated slots 8 and 9 in the arms 5 of the bridge. When the bridge is thus properly engaged on the screws 3 and is properly centered, the screws are tightened to hold the supporting bridge properly secured in a centered position supported beneath the outlet box. The canopy supporting unit including the coupler 25, the stem 26, and the guard spring 27 is now slidably raised or pushed upwardly on the drop cord 13 together with the canopy 23 and the upper end of the stem 26 is threaded through the threaded opening 14 in the bottom plate 7 of the middle or U-shaped section of the supporting bridge. The stem 26 is threaded upwardly until the upper end of the canopy is brought into tight-seating contact with the wall or ceiling 4. By mounting the drop cord gripping brackets or plates in a bridged position in the U-shaped section of the supporting bridge above the bottom plate 7, it will be noted that the threaded stem 26 may be adjusted a considerable distance without coming into contact with the gripping means so that it is possible to mount and support canopies of different sizes to enclose the supporting bridge.

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 drop cord and canopy supporting device comprising a U-shaped bridge having

openings therein to adapt the same to be fitted to outlet boxes of different sizes, a drop cord gripping means bridged across the U-shaped bridge and a canopy supporting means adjustably connected with the bridge to enclose the bridge and hold the canopy in position.

2. A drop cord and canopy supporting device comprising a U-shaped supporting bridge having openings therein to permit the bridge to be attached to standard outlet boxes of different sizes, a drop cord gripping device bridged across the U-shaped bridge, a canopy supporting means adjustably engaged with the bridge for supporting a canopy in position, and a drop cord guard carried by said canopy supporting means.

3. A drop cord and canopy supporting device comprising a U-shaped plate including means to permit the same to be attached to standard outlet boxes of different sizes, and drop cord and canopy supporting means carried by the U-shaped plate and adjustable with respect to one another.

4. A drop cord and canopy supporting device comprising a member formed with a U-shaped section and having openings therein to permit the member to be attached to standard outlet boxes of different sizes, a drop cord gripping device bridged across said U-shaped section, a stem adjustably engaged in the U-shaped section, a canopy supporting coupler secured to said stem, and a guard for the drop cord supported by said canopy supporting coupler.

5. A drop cord and canopy supporting device comprising a bridge member having openings therein to permit the bridge member to be attached to standard outlet boxes of different sizes, said bridge member having a U-shaped intermediate section provided with side openings and a threaded bottom opening, a drop cord gripping device bridged across the U-shaped intermediate section of the bridge member and supported in the side openings of said U-shaped intermediate section, a canopy supporting means adjustably threaded through the bottom opening of said intermediate U-shaped bridge section, and a resilient drop cord guard carried by said adjustable canopy supporting means.

6. A drop cord and canopy supporting device comprising a bridge member including means to permit attachment to an outlet box, said member formed with a depressed section, a drop cord clamping support bridged across said section, and a canopy support engaged with said section to support a canopy in position with the canopy enclosing the bridge member.

7. The combination with a supporting bridge formed with a U-shaped section, of a drop cord supporting means bridged across said U-shaped section.

8. The combination with a supporting bridge having openings therein to permit the

bridge to be attached to standard outlet boxes of different sizes, of a canopy supporting means adjustably carried by the bridge for supporting a canopy in position with the canopy enclosing the bridge, and a drop cord guard carried by the canopy supporting means.

9. The combination with a supporting bridge having openings therein to permit the bridge to be attached to standard outlet boxes of different sizes, of a threaded stem adjustably engaged with said supporting bridge, a canopy supporting coupler secured to said threaded stem, and a drop cord guard secured to said coupler.

10. The combination with a supporting bridge having a U-shaped intermediate portion, of a drop cord gripping means bridged across said U-shaped intermediate portion, and a canopy supporting means engaged in the bottom of said U-shaped intermediate portion.

11. A drop cord and canopy supporting device comprising a bridge member comprising supporting arms and an intermediate U-shaped section, a drop cord gripping means bridged across said intermediate U-shaped section, a threaded stem adjustably engaged in the bottom of said U-shaped intermediate section, and a canopy supporting coupler secured on one end of the threaded stem for adjusting the stem with respect to the U-shaped intermediate section of the bridge member.

12. A drop cord and canopy supporting device comprising a bridge member consisting of supporting arms and an intermediate U-shaped section, a drop cord gripping device bridged across the intermediate U-shaped section, a stem engaged with the intermediate U-shaped section, a canopy supporting coupler on said stem, and a drop cord guard removably engaged in said coupler.

13. A drop cord and canopy supporting device comprising a bridge member embracing apertured supporting plates, a U-shaped intermediate section integrally connecting said plates, a drop cord bracket bridged across said intermediate section, an auxiliary drop cord gripping bracket adjustably engaged on said bridged bracket, a stem adjustably engaged in said intermediate section, a canopy supporting coupler secured to said stem, and a drop cord guard spring removably engaged in said coupler.

14. A supporting bridge device comprising a bridge plate having openings therein arranged to permit the plate to be secured to standard outlet boxes of different sizes, said bridge plate having the middle portion thereof deflected to form a U-shaped intermediate section, and a drop cord gripping means bridged across said U-shaped intermediate section.

15. A supporting bridge device compris-

ing a bridge plate constructed to permit the same to be secured to standard outlet boxes of different sizes, said bridge plate having a portion thereof bent to form a U-shaped section, a drop cord supporting bracket bridged across said section, an auxiliary clamping bracket, and means for adjusting said auxiliary clamping bracket with respect to the main supporting bracket for gripping a drop cord between the brackets.

16. A supporting bridge device comprising a bridge plate having a portion thereof deflected to provide a U-shaped section, a drop cord gripping means bridged across said U-shaped section, and a canopy supporting means engaged in the bottom of said U-shaped section.

17. A supporting bridge device comprising a bridge plate having openings therein to permit the bridge plate to be attached to standard outlet boxes of different sizes, and a combination canopy support and drop cord protecting guard engaged with and adjustable with respect to said bridge plate.

18. A supporting bridge device comprising a bridge plate having a threaded opening therein, a supporting stem adjustably threaded through said opening, a canopy supporting coupler secured on one end of said threaded stem and a guard spring removably engaged in said coupler.

19. A supporting bridge device comprising a bridge plate, a drop cord support carried thereby, and a canopy support removably engaged with said bridge plate and adjustable toward and away from said drop cord supporting means for holding a canopy clamped in position to enclose the bridge plate.

In testimony whereof I have hereunto subscribed my name at Chicago, Cook County, Illinois.

JOHN B. GLOWACKI.