

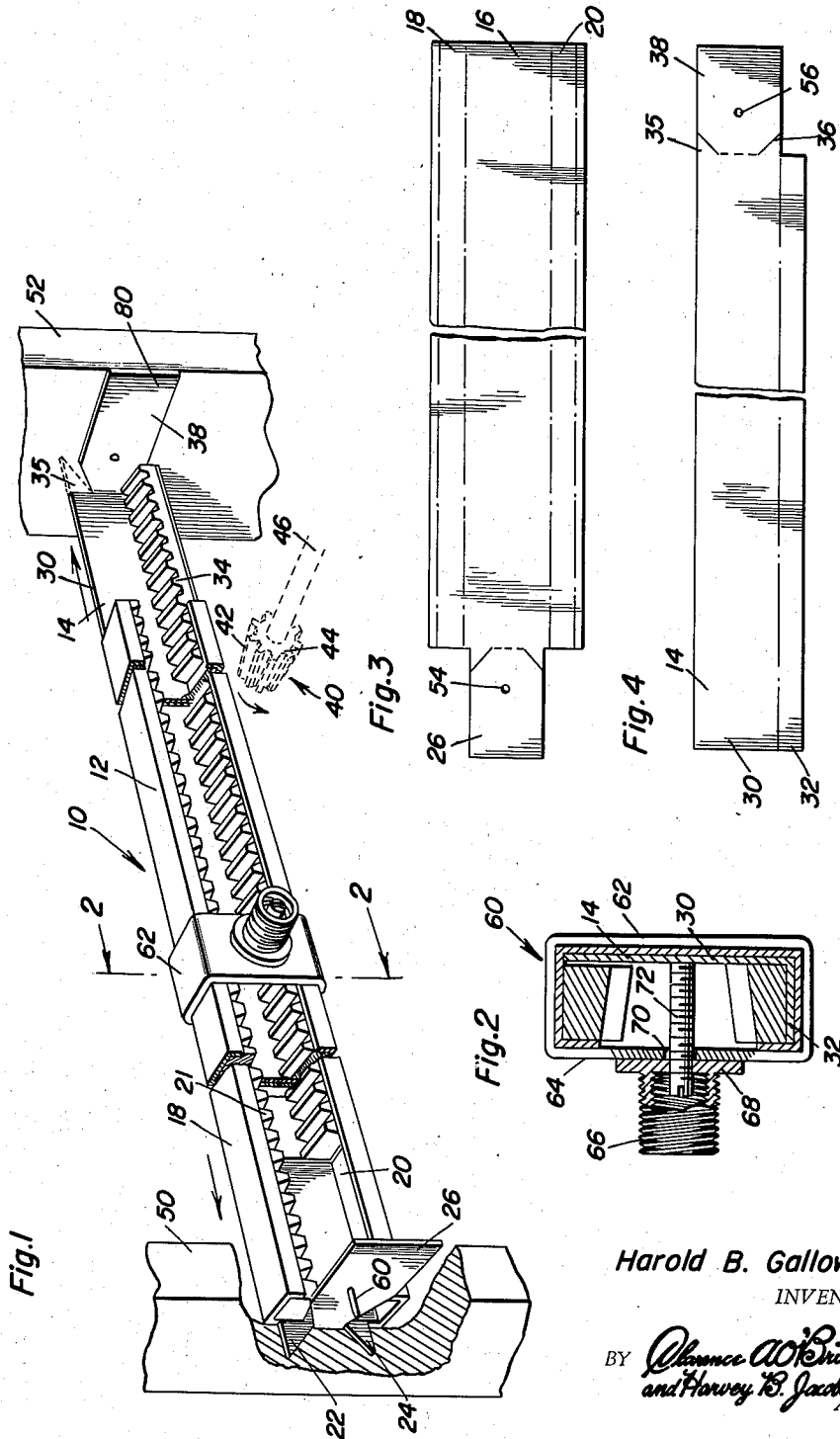
Dec. 13, 1960

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2,964,279

OUTLET BOX SUPPORT

Filed March 27, 1958



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1

2,964,279

OUTLET BOX SUPPORT

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Filed Mar. 27, 1958, Ser. No. 724,309

6 Claims. (Cl. 248—216)

This invention relates generally to supports and more particularly to an adjustable support for utilization with an electric outlet box.

With the ever increasing development of electrical appliances, the necessity for additional outlet boxes in the walls of modern homes is extremely important. Further, with modern appliances drawing greater currents, the outlet boxes for feeding the appliances must be stronger mechanically and have greater insulative qualities. Along with the need for improved outlet boxes, the need exists for improved supports to maintain the outlet boxes properly positioned relative to the wall. Therefore, it is the principal object of this invention to provide a novel and improved construction in an electrical outlet box support.

It is a further object of this invention to provide an improved outlet box support which is adjustable and so may be accommodated in houses of various constructions.

It is a further object of this invention to provide a novel and improved outlet box support which is more reliable, more efficient, and competitively priced relative to heretofore known devices.

In accordance with the above stated objects, below is particularly described a novel and improved construction in outlet box supports which utilizes a pair of elongated members slidable relative to each other. The first of said members is channel shaped and a second angle shaped. The second angle shaped member is adapted to slide within the first channel shaped member. Further, the elongated members have opposed teeth which are adapted to cooperate with a toothed key for slidably moving the elongated members relative to each other. Still further, each of the elongated members terminally supports a pair of stud gripping fingers so that the support comprising this invention may be securely held between studs behind a plastered wall. The invention further contemplates the use of a support member slidable on the elongated members and adapted to be locked by a lock screw relative thereto. A pair of forwardly projecting legs are carried by the elongated members and are particularly adapted to be broken off along selective scored lines on the legs so that an outlet box supported by the support member may extend flush with the projecting legs.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a partially cutaway view illustrating the outlet box support comprising this invention;

Figure 2 is a sectional view taken substantially along the plane 2—2 of Figure 1;

Figure 3 is an elevational view of a blank of the first channel shaped elongated member; and

2

Figure 4 is an elevational view of a blank of the second angle shaped elongated member.

With continuing reference to the drawings, numeral 10 generally represents the outlet box support comprising this invention and including a first elongated member 12 and a second elongated member 14.

The first elongated member 12 is of channel shape having a bight portion 16 and two forwardly projecting leg portions 18 and 20. Dependingly supported from the upper leg portion 18 as by welding thereto is a series of teeth 21. Terminally protruding from one end of the first elongated member 12 are a pair of fingers 22 and 24 which form pointed extensions of the elongated member 12. It will be noted that the extending pointed fingers 22 and 24 are formed when a projecting leg 26 is bent forwardly perpendicular to the elongated member 12. It is further to be noted that the elongated member 12 is of unitary construction and involves no complex or difficult machining.

The second elongated member 14 is of angle shape having an upstanding leg portion 30 and a horizontal projecting leg portion 32. The leg portion 32 carries, as by welding, a series of teeth 34 thereon. As was described for the first elongated member, the second elongated member 14 has a pair of pointed extending fingers 35 and 36 which are formed when a projecting leg 38 is bent perpendicular to the elongated member 14.

The angle shaped elongated member 14 is adapted to slide within the elongated channel shaped member 12. This relationship positions the teeth 21 carried by the member 12 and the teeth 34 carried by the member 14 in opposed relationship. It is to be noted here that the teeth are intended to be of identical dimensions. By the utilization of a key 40 having a series of teeth 42 on a forward cylindrical portion 44 carried by a stem 46 it is adapted to cooperate with the opposed teeth 21 and 34 so that by turning the key 40 in the rotational direction indicated by the arrow, the angle shaped elongated member 14 will move to the right while the channel shaped elongated member 12 will move to the left. In this manner the pointed extending fingers 22 and 24 will embed themselves in a first stud 50 while the fingers 35 and 36 will embed themselves in a second stud 52. Clearly, the pointed extending fingers provide enough support for the invention to support an outlet box. However, apertures 54 and 56 in legs 26 and 38 are adapted to receive nails 60 for more securely fastening the support between the studs 50 and 52. To remove the support 10 from the studs 50 and 52, the key 40 may be rotated clockwise so that the channel elongated member 12 will move to the right and the angle elongated member 14 will move to the left, thereby compressing them.

A support member 60 includes a continuous frame 62 which is slidable relative to the elongated members 12 and 14. Affixed to the front face 64 of the support member 60 is an internally and externally threaded neck portion 66 which is shown formed integral with a base 68 which may be welded or formed integral with the front face 64 of support member 60. An aperture 70 is formed in the continuous frame 62 and threadedly receives a locking screw 72 which is adapted to bear against the leg 30 of the angle shaped member 14. It is apparent that the locking screw 72 will prevent slidable movement of the support member 62 relative to the elongated members 12 and 14 when the locking screw 72 tightly bears against the leg 30 of elongated member 14.

Any conventional outlet box may be supported from the neck portion 66 after the support member 62 has been properly slidably adjusted on elongated members 12 and 14. To install an outlet box on the neck portion 66, it is only necessary to pass the neck portion 66

through an aperture conventionally found on the back of outlet boxes and then to utilize a nut or any proper fitting on the threaded neck portion to tighten the inside back of the box against the base 68. The outlet box would of course extend forwardly from the neck portion 66 and be supported between the forwardly projecting legs 26 and 38. It is to be noted that the legs 26 and 38 are scored as at 80 so that they may be easily broken off at proper lengths for terminating flush with the wall and outlet box.

The operation of this invention should be apparent but in summary it is to be noted that the invention includes a minimum of working parts each particularly and efficiently designed to accomplish a specific purpose. It is further to be noted that each of the parts may be stamped out thereby minimizing manufacturing costs. The simplicity of the invention and the reliability further minimizes installation costs.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. An adjustable support for electrical outlet boxes comprising a unitary elongated channel member having a substantially straight plate-like main body portion and legs at right angles thereto and a unitary elongated angle member having a substantially straight plate-like main body portion and a leg at right angles thereto slidable in said channel member, said main body portions being disposed in surface to surface sliding contacting relation opposed teeth carried by one leg of said channel member and the leg of said angle member for facilitating sliding, stud gripping means terminally formed on and integral with each of said members, said stud gripping means each lying in a plane aligned with the longitudinal medial plane of the corresponding plate-like main body portion, a support member carried by said elongated members, said support member including a continuous frame encircling and slidable on said channel member, a threaded neck portion carried by said frame extending away from said elongated members, an internally threaded aperture in said frame disposed concentric with said neck portion, a lock screw threadedly received in said aperture and extending into said channel whereby it may bear against said body portion of said angle member for locking said support member relative to said elongated members.

2. An adjustable support for electrical outlet boxes comprising a unitary elongated channel member having a substantially straight plate-like main body portion and legs at right angles thereto and a unitary elongated angle member having a substantially straight plate-like main body portion and a leg at right angles thereto slidable in said channel member, said main body portions being disposed in surface to surface sliding contacting relation opposed teeth carried by one leg of said channel member and the leg of said angle member for facilitating sliding, stud gripping means terminally formed on and integral with each of said members, said stud gripping means each lying in a plane aligned with the longitudinal medial plane of the corresponding plate-like main body portion, a support member carried by said elongated members, said support member including a continuous frame encircling and slidable on said channel member, a threaded neck portion carried by said frame

extending away from said elongated members, an internally threaded aperture in said frame disposed concentric with said neck portion, a lock screw threadedly received in said aperture and extending into said channel whereby it may bear against said body portion of said angle member for locking said support member relative to said elongated members, forwardly projecting legs terminally formed on and integral with each of said members, said forwardly projecting legs defining scored lines therein so that said legs are adapted to be broken off along selective scored lines.

3. An adjustable support for electrical outlet boxes adapted to be mounted in a wall through a relative'y small opening between two adjacent stud members, said support comprising a pair of elongated thrust members, means securing said members together for relative longitudinal sliding movement between a retracted position and an extended position, each of said thrust members including a substantially straight and longitudinally extending main body member, means connected with said thrust members for applying thrust to longitudinally extend said thrust members, stud penetrating and gripping means carried by the remote ends of said thrust members and extending outwardly and longitudinally of the latter, said penetrating and gripping means each lying in a plane in alignment with the longitudinal medial plane of the corresponding main body member, an outlet box support member carried by said thrust members, said thrust members comprising a channel member having a pair of spaced parallel legs interconnected by a substantially straight plate-like bight portion disposed at right angles to said legs and an angle member having a substantially straight plate-like body portion and a leg at right angles thereto, said securing means comprising the telescoping interlocking engagement of said thrust members, said angle member having its body portion in surface to surface contacting relation with said bight portion, said one leg and said bight portion comprising said main body members, the other leg of said angle member disposed in sliding surface-to-surface contacting relation with one leg of said channel member, said thrust means including confronting teeth on the confronting surfaces of said other leg of said angle member and the other leg of said channel member.

4. The combination of claim 3 wherein said support member includes a continuous frame encircling and slidable on said thrust members, a threaded neck portion carried by said frame and extending away from said thrust members, an internally threaded aperture in said frame disposed concentric with said neck portion, a lock screw threadedly received in said aperture and extending into said channel whereby it bear against said bight portion for locking said support member relative to said thrust members.

5. The combination of claim 3 wherein said outlet box support member is slidably mounted on said thrust members for movement longitudinally therealong.

6. The combination of claim 5 including means for releasably locking said support member in adjusted positions on said thrust members.

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