May 1, 1934. E. J. SELEN 1,957,003

BOX ATTACHMENT DEVICE

Filed July 10, 1931

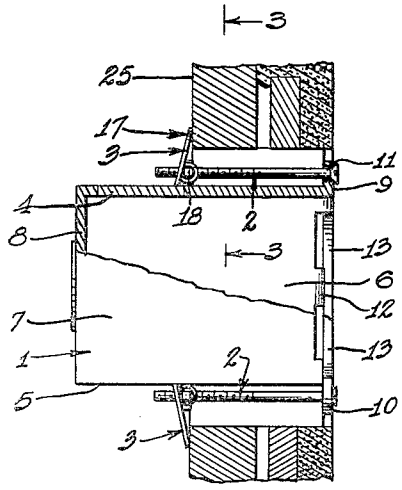


Fig. 1

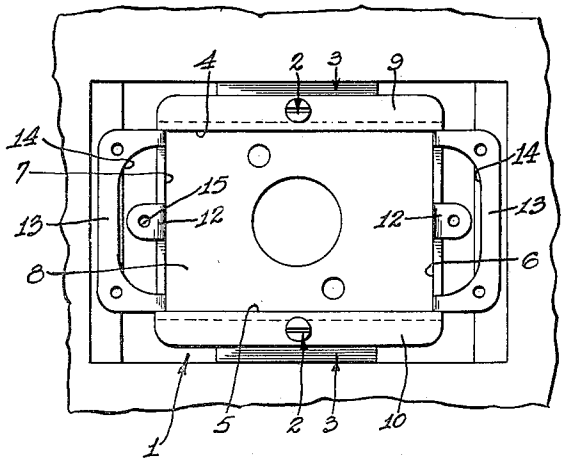


Fig. 2

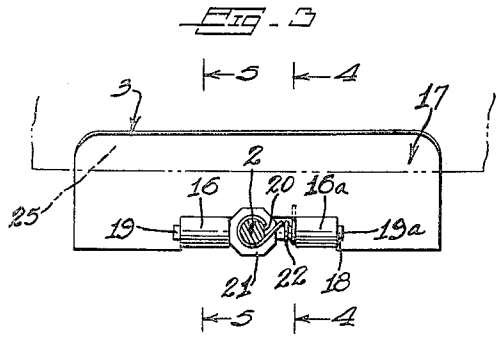


Fig. 3

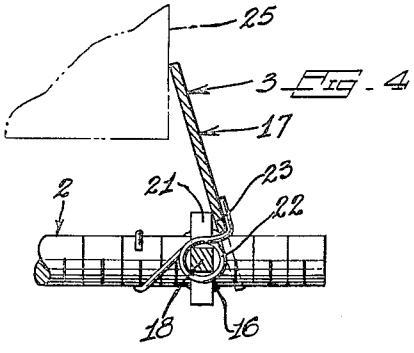


Fig. 4

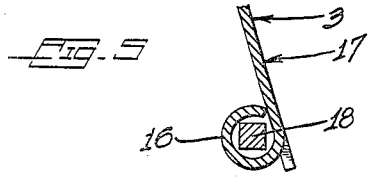


Fig. 5

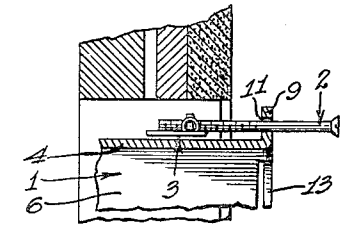


Fig. 6

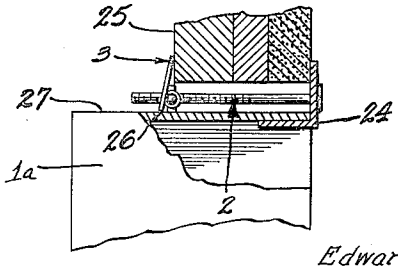


Fig. 7

Edward J. Selen
INVENTOR

BY Munn & Co.
ATTORNEYS

Patented May 1, 1934 1,957,003

UNITED STATES PATENT OFFICE

1,957,003

BOX ATTACHMENT DEVICE

Edward J. Selen, Chicago, Ill., assignor of one-half to George A. Grajewski, Chicago, Ill.

Application July 10, 1931, Serial No. 550,032

4 Claims. (Cl. 247—21)

My invention relates to improvements in box attachment devices, and it consists in the combinations, constructions, and arrangements herein described and claimed.

An object of my invention is to provide an electrical connection box having attachment means whereby the box may be easily secured to an opening in a wall without injury to the wall.

A further object of my invention is to provide an attachment device whereby containers may be secured in a wall opening.

A further object is to provide a combination of an electrical box and attachment means adapted to coact with each other in anchoring the box in a wall opening.

A further object is to provide an attachment device which may be inserted between the sides of a wall opening and the sides of the box and securely clamped to the wall in a manner adapted to anchor the box in the opening.

A further object is to provide attachment means adapted to be secured to the sides of a box whereby the box may be anchored in an opening in a wall and secured to the wall.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawing, forming part of this application, in which

Figure 1 is a side elevation, partly in section, of a structure embodying my invention and showing the invention as applied to a wall,

Figure 2 is a front elevational view of the structure shown in Figure 1,

Figure 3 is an enlarged sectional view taken along the line 3—3 of Figure 1,

Figure 4 is an enlarged sectional detail view taken along the line 4—4 of Figure 3,

Figure 5 is a section along the line 5—5 of Figure 3,

Figure 6 is a sectional view showing the device of my invention being inserted in a wall opening, and

Figure 7 is a detail view showing a modification of my invention as applied in use.

In carrying out my invention, I make use of a box 1, a threaded screw 2, and a pivoted jaw 3. The box 1 may consist of an upper wall 4, a lower wall 5, side walls 6 and 7, and a rear wall 8. The walls 4 and 5 may be provided with flange portions 9 and 10. These portions 9 and 10 are provided with openings 11. These openings are adapted to receive the threaded screw 2. The side walls 6 and 7 may be provided with perforated ear portions 12 and 13, respectively. These ear portions may be constructed of the same piece of material as the side walls 6 and 7 and may be formed by cutting away a section of material sufficiently to provide the opening 14. The ear portions 12 may be offset rearwardly and are provided with an opening 15 whereby a cover plate, not shown, may be secured thereto.

The pivoted jaw 3 may be provided with tubular means 16 and 16*a* which may be formed of the same piece of material as is the jaw gripping section 17. A rod 18 may have its end sections 19 and 19*a* positioned within the tubular means 16 and 16*a*. The central portion 21 of the rod 18 may be flattened and a threaded opening 20 may be provided therein for the purpose of receiving the threaded portion of the rod 2. A helical spring member 22 may be coiled around a portion of the rod 18 and have one of its ends abutting against the rear side of the gripping section 17. The other end of the spring may abut against or be coiled around the rod 2 as is best shown in Figures 3 and 4. The inner central portion of the jaw gripping member 17 adjacent the edge 23 may, if desired, be bent rearwardly for the purpose of providing a means whereby the member 17 may be held more firmly by the threaded portion of the rod 2.

In Figure 7, I have shown a modified form of my invention comprising an attachment device whereby a box 1*a* not having flanged portions may be anchored in a wall opening. This attachment device may consist of the threaded screw 2 used in the preferred form of my invention, the pivoted jaw 3, and a perforated angular flanged member 24. This device, constituting the modified form of my invention, may be secured to sides of the box 1*a* and to the wall 25 substantially as shown in Figure 7.

It will be observed that the bottom edge 26 of the jaw member 3 is adapted to engage the outside surface of the wall 27 of the box 1*a* at an angle whereby the box 1*a* may be firmly secured to the wall 25.

The operation of my device is as follows: Referring more particularly to Figure 4, it will be seen that the clamping jaw 3 is in engagement with the wall 25. However, it is necessary to position the clamping jaw so that it may be inserted between a horizontal edge of the wall 25 and the top or bottom of the housing or box 1. The screw 2 is turned until the nut 21 rides to substantially the end of the screw. The clamping jaw 3 is moved outwardly beyond the threaded

end of the bolt or screw 2 until it gets into the position shown in Fig. 6 whence the screw is then revolved until the free end of the screw or bolt moves over the clamping jaw and retains it in position in Fig. 6.

The bolt is then shoved inwardly and reversely revolved to release the free end of the screw from the plate whence the spring 23 will force the clamping jaw to the position shown in Fig. 4.

It will be noted that the inner face of the clamping jaw will be limited to a slight angle from the vertical, as shown in Fig. 4 since the spring tends at all times to force the clamping jaw against the nut. When the bolt or screw 2 is properly revolved it will cause the clamping jaw 3 to engage the inner face 25 of the wall sufficiently to retain the box in place.

I claim:

1. An attachment device for aiding in clamping within an open portion of a wall a box provided with outwardly extending apertured clamping jaw portions and outwardly extending apertured ear portions, said device comprising a bolt means having an enlarged head portion and threaded shank portion, a cross head threadedly carried on said shank portion and a complementary relatively movable clamping jaw portion comprising a substantially flat main body portion, integral spaced apart bearing portions, said bearing portions encircling the extended ends of said cross head upon opposite sides of the bolt, and a spring supported by the shank and one of the bearing portions and tending to move one edge of the body portion towards the head portion of the bolt.

2. An attachment device for aiding in clamping within an open portion of a wall a box provided with outwardly extending apertured clamping jaw portions and outwardly extending apertured ear portions, said device comprising a bolt means having an enlarged head portion and threaded shank portion, a cross head threadedly carried on said shank portion and a complementary relatively movable clamping jaw portion comprising a substantially flat main body portion, and integral spaced apart bearing portions, said bearing portions encircling the extended ends of said cross head upon opposite sides of the bolt, said complementary clamping jaw being provided intermediate of said bearing portions with a spring slidably engaging said shank and adapted for pressing said body portion and tending to move one edge of the body portion toward the head portion of the bolt.

3. An attachment device for aiding in clamping in a wall opening a box provided with outwardly extending apertured clamping jaw portions and outwardly extending apertured ear portions, said device comprising said box, bolt means having an enlarged head portion, and a threaded shank portion, a cross head threadedly carried on said shank portion and a complementary relatively movable clamping jaw portion comprising a substantially flat main body portion, integral spaced apart bearing portions, said bearing portions encircling the extended ends of said cross head upon opposite sides of the bolt, and a spring supported by the shank and tending to move the free end of the body portion towards the head portion of the bolt.

4. An attachment device for aiding in clamping in a wall opening a box provided with outwardly extending apertured clamping jaw portions and outwardly extending apertured ear portions, said device comprising said box, bolt means having an enlarged head portion, and a threaded shank portion, a cross head threadedly carried on said shank portion and a complementary flat main body portion, and integral spaced apart bearing portions, said bearing portions encircling the extended ends of said cross head upon opposite sides of the bolt, said complementary clamping jaw being provided intermediate of said bearing portions with a spring slidably engaging said shank portion and adapted for pressing said body portion and tending to move one edge of the body portion toward the head portion of the bolt.

EDWARD J. SELEN.