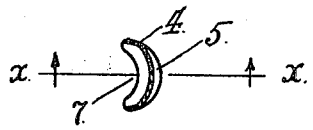
M. B. LEVIN.

LOOM ATTACHMENT FOR OUTLET BOXES.

APPLICATION FILED OCT. 9, 1918.

1,310,758. Patented July 22, 1919.

Fig. 5.



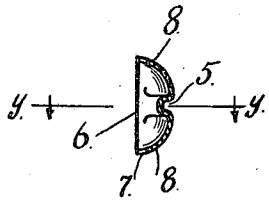


Fig. 4.

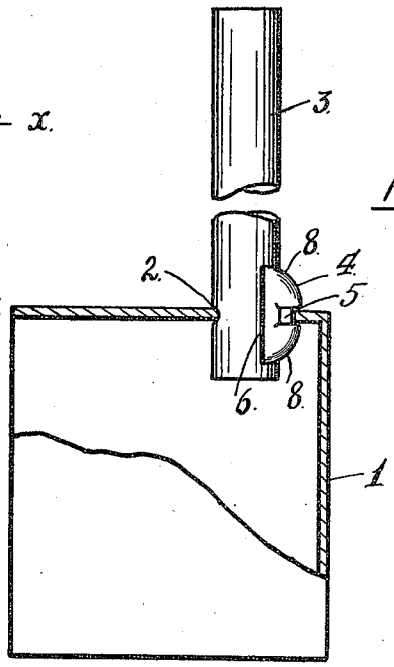


Fig. 1.

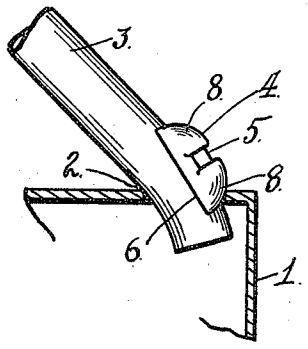


Fig. 2.

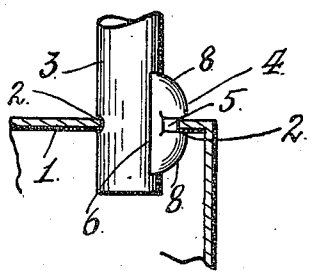


Fig. 3.

WITNESS

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LOOM ATTACHMENT FOR OUTLET-BOXES.

1,310,758. Specification of Letters Patent. Patented July 22, 1919.

Application filed October 9, 1918. Serial No. 257,429.

To all whom it may concern:

Be it known that I, MATILDA B. LEVIN, a citizen of the United States, residing at the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Loom Attachments for Outlet-Boxes, of which the following is a specification.

The hereinafter described invention is designed for use in connection with electrical installation in buildings generally and for the securing of the loom within the outlet boxes of such installation in such a manner as to prevent the ready displacement thereof after having been applied to the said boxes.

As well known, the outlet boxes are provided with a plurality of loom openings, depending on the electrical connections to be made through the use of said boxes. These loom boxes as placed on the market by the manufacturer thereof are usually provided with a series of removable disks which cover the loom openings, and are so held in place as to be easily "knocked" out of the loom opening covered thereby, and when separated from the walls of the box leave free loom openings for the insertion of the loom therethrough. The objection to this type of outlet box is that the looms are left loosely held within the box after the placing thereof in proper position within the wall structure of a building, with the result that they are easily removed, become displaced or separated from the boxes and are lost. Efforts have been made to overcome this objection by providing the outlet boxes with loom openings having a plurality of depressible tongues which are designed to press onto the outer surface of the loom as forced therethrough and hold the same against outward movement on an effort being made to withdraw the loom. This type of outlet box while partially serving to overcome the difficulty to the extent of preventing the withdrawal of the loom on a pulling strain being placed thereon in one direction, does not wholly solve the problem and besides is objectionable due to its expense of manufacture and the liability of the loom securing tongues being mutilated and rendered useless by reason of the hard usage to which they are subjected during handling.

The object of the present invention is to provide a simple, efficient and inexpensive attachment for the holding of the loom securely positioned within a loom opening of an outlet box, and one which is capable of being applied to the loom as the same is about to be inserted within the loom opening of the outlet box and of such a construction as to act in the manner of a lever adapted to move with the loom within the loom opening as pressure is applied on the loom to force the same within the opening at an incline to the horizontal, until the edge of the loom opening has passed within a transverse groove formed in the attachment, at which time the same springs outwardly due to the resiliency of the material out of which the loom is formed so as to engage the edge of the loom opening within said groove and thereby hold the attachment firmly in place and the loom in place by reason of the wedge action of the attachment and by so doing holding the loom against displacement.

To comprehend the invention, reference should be had to the accompanying sheet of drawings, wherein,

Figure 1 is a broken part sectional side elevation of a loom box illustrating the loom secured within one of the loom openings of the box.

Fig. 2 is a detailed sectional view, illustrating the loom with the loom holder about to be applied to the loom opening of the box.

Fig. 3 is a view similar to Fig. 2 of the drawings illustrating the loom and attachment positioned within the loom opening of the box.

Fig. 4 is a longitudinal sectional view of the loom attachment taken on the line X—X, Fig. 5 of the drawings, and viewed in the direction of the arrows.

Fig. 5 is a transverse sectional view of the attachment taken on the line Y—Y, Fig. 4 of the drawings and viewed in the direction of the arrows.

In the drawings, the numeral 1 is used to designate an ordinary outlet box, 2, one of the loom openings thereof, and 3 the loom for the outlet box. The attaching means for the outlet box comprises an elongated cup-shaped shell 4, which is provided on its upper surface with a transverse groove 5. The side walls of the cup-shaped shell 4 are substantially straight as indicated by the numeral 6, while the forward and rear end

walls of the shell are slightly concaved as indicated by the reference numeral 7, so as to partly straddle or embrace the loom when applied or held to the surface thereof. The attachment is stamped or formed from a single piece of metal, and owing to the cup-like formation thereof there are provided gradual inclined surfaces 8 from the ends of the shell to the transverse groove 5 thereof, which inclined surfaces act as wedge surfaces as the attachment with a loom is forced inwardly within a loom opening, one portion of the edge surfaces of the loom opening 3, riding over one of the inclined surfaces 8 of the attachment as the same is moved within the loom opening together with the loom to be secured therein. As the attachment with the loom is forced into the loom opening there is a gradual downward pressing of the shell relative to the surface of the loom, which causes the edge surfaces and more particularly the concaved end surfaces thereof to bite or be depressed within the surface of the loom, in order to provide a clearance space for the attachment with the loom to enter under the forcing strain within the loom opening until the highest point of the inclined surface of the attachment is carried beyond the edge of the loom opening, when, owing to the resiliency of the loom material there is a slight outward give which causes the edge of the loom opening to fit within the transverse groove 5 of the loom attachment. It will be understood that the diameter of the loom is slightly less than the diameter of the loom opening, but of greater diameter than the loom opening when the loom attachment is applied thereto, with the result, that in order to pass the loom attachment with the loom into the loom opening of necessity there must be a compression of the loom, and such loom is maintained under compression after the edge of the loom opening is seated within the transverse retaining groove 5 of the loom attachment.

In carrying out the invention, the loom attachment is first applied to the surface of the loom and held thereto by hand pressure at a point adjacent the end thereof to be inserted within the loom opening, and the loom with the attachment held thereto partly forced within the loom opening while held at slight inclination to the horizontal, as disclosed by Fig. 2 of the drawings. This places a portion of the inclined end surface of the attachment within the loom opening. As thus positioned, an inward forcing strain is applied to the loom while the same is gradually brought to a vertical position, which serves to gradually wedge the attachment downwardly within the loom opening until one edge thereof passes the highest point of the inclined surface and seats within the transverse retaining groove 5, when the resiliency of the loom material forces the attachment outwardly laterally, Fig. 3 of the drawings, although, at this time the loom is held under compression by the bite of the attachment therein, and the loom thus prevented against displacement.

By reason of the construction of the loom attachment, the loom is held securely within the loom opening of the outlet box under all pulling strain to which the same is usually subjected and thereby prevented from displacement and loss after having been attached within the loom opening of the outlet box. Inasmuch as the attachment is detachable from the loom box and loom, the same may be applied to the loom at any time and attached to the outlet box when desired, thus avoiding the necessity of providing a special type of outlet box designed for holding the loom in fixed position and the expense incident thereto.

The segmental groove 5, for engaging with the edge of the loom opening when the loom and attachment stands in parallel relation within the loom opening, does not extend throughout the width of the attachment but determines a slight distance above the lower side wall edges of the attachment, this construction being to preserve the strength of the material along the side edges of the attachment so as to prevent the collapsing or transverse breaking of the attachment when subjected to the leverage strains in applying the same with the loom within the loom opening, but, it will be understood that the length of the transverse groove need be only such as to serve as a retaining seat for the reception of the edge of the loom opening.

Having thus described the invention what is claimed as new and desired to be protected by Letters Patent is:

1. As a new article of manufacture an attachment for securing looms within the loom openings of outlet boxes, the same comprising a sheet of metal stamped to form an elongated cup-shaped shell, provided on its upper surface with a depressed transverse retaining groove and having the end surfaces thereof concave to partly embrace the surface of a loom when applied thereto.

2. As a new article of manufacture an attachment for securing looms within the loom openings of outlet boxes, the same comprising a sheet of metal stamped to form an elongated cup-shaped shell, provided on its upper surface with a transverse retaining seat and adapted to serve as a wedge member for locking the loom within a loom opening of an outlet box.

3. An attachment for securing looms within the loom openings of outlet boxes, the same comprising a sheet of metal stamped to form an elongated cup-shaped

shell provided on its upper surface with a retaining seat adapted to engage with the inner edge of a loom opening when applied thereto positioned relative to a loom for holding the loom under compression within the loom opening of the outlet box.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MATILDA B. LEVIN.

Witnesses:
N. A. ACKER,
D. B. RICHARDS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."