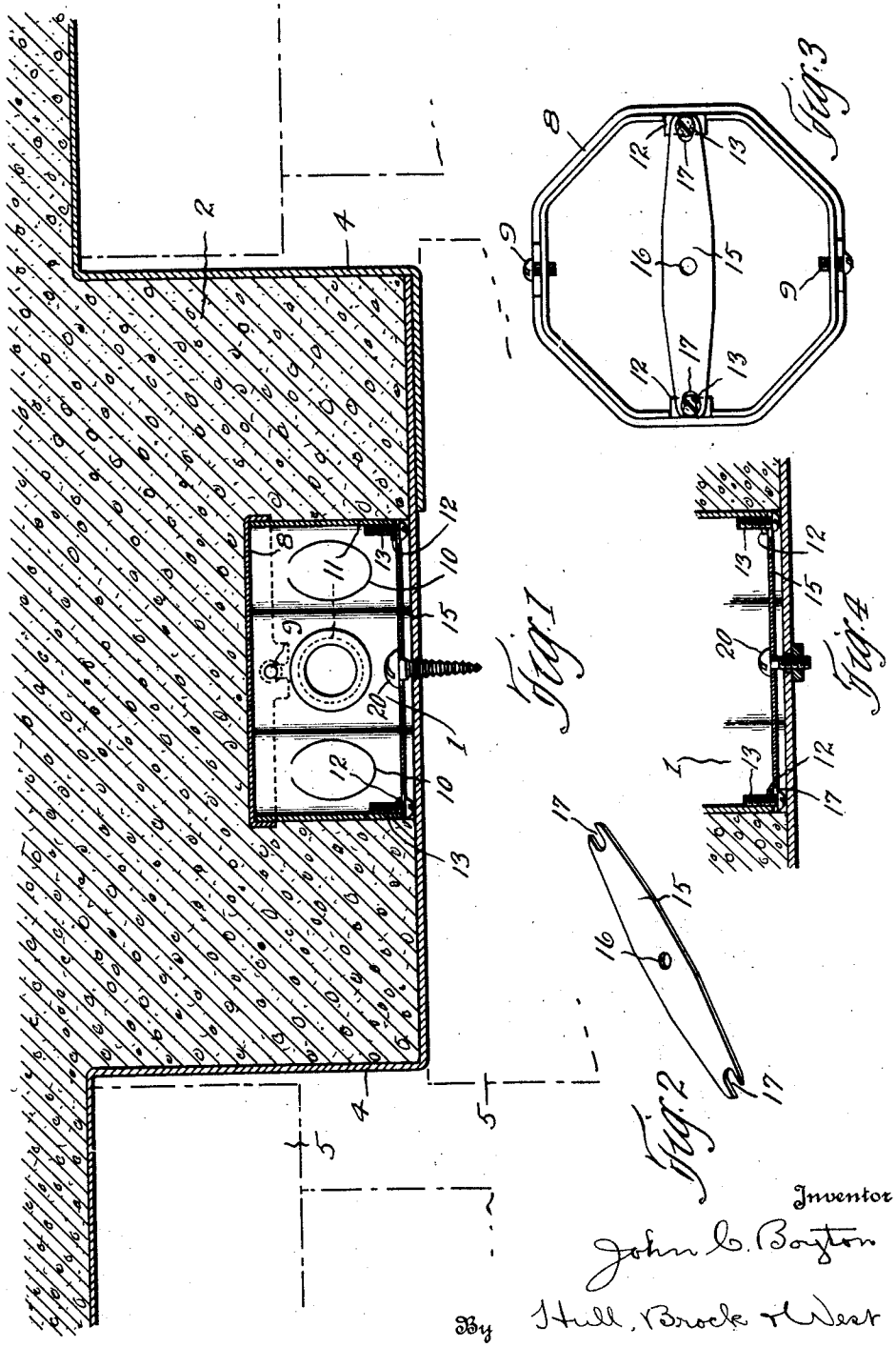
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TEMPORARY FASTENING MEANS FOR OUTLET BOXES

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## TEMPORARY FASTENING MEANS FOR OUTLET BOXES.

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This invention relates to a device for temporarily fastening outlet boxes, such as are commonly used in the conduit systems of electrical installations of poured concrete buildings, to the concrete forms preparatory to and during the pouring and hardening of the concrete, the invention being especially suitable for use with sheet metal forms.

Heretofore in the use of forms of this class considerable loss and inconvenience have been experienced because of the character of the means then available for temporarily fastening the boxes to the forms. When placing the boxes it was necessary to bore a plurality of holes in the forms for each box, resulting in such a mutilation of the forms that they were soon rendered unsuitable for use; and when removing the forms the non-yielding character of the fastening means resulted in the forms being bent and twisted to such an extent that they were either rendered useless or required an unwarranted amount of time in reconditioning them. Of course the latter difficulty could have been avoided by painstakingly disconnecting the forms from the boxes before the forms were dismantled, but the time consumed by such an operation would have made it impractical and prohibitive from the standpoint of expense.

The objects of my invention are to provide a cheap and very simple device for temporarily fastening outlet boxes to concrete forms and by which the foregoing difficulties are eliminated, and the placement and proper positioning of the boxes is greatly expedited and facilitated.

An embodiment of the invention is illustrated in the accompanying drawing wherein Fig. 1 is a fragmentary sectional view through a poured concrete structure showing an imbedded outlet box fastened to a form member by the use of my device; Fig. 2 is a perspective view of the device; Fig. 3 shows an outlet box in bottom plan with the device applied thereto, and Fig. 4 is a sectional detail illustrating an alternative means for fastening the device to a form member.

For the purpose of illustration I have shown an outlet box 1 of standard construction embedded within a beam 2 of a poured concrete ceiling 3, the parts being given their shape by the form members 4. The supports for the form members are shown in dot-and-dash lines and designated 5.

The box 1 is provided with a removable cover 8 that is held in place by screws 9. The present box is octagonal in plan and in order to adapt it for use with two different sizes of conduits, every other face of the box is provided with knock-out openings 10 of one diameter, and the intermediate faces with knock-out openings 11 of smaller diameter. The usual ears 12 extend inwardly from diametrically opposite points of the open side of the box and have threaded perforations for the reception of screws 13 by means of which a cover, fixture strap or other element may be secured to the box.

The device by means of which the outlet box is temporarily fastened to the form member on which it rests is designated 15 and is preferably die stamped from sheet metal of suitable thickness and quality. It is provided with a central aperture 16, and with notches 17 that open through its ends. The device is adapted to be attached to the box by the aforesaid screws 13.

In preparing for the placement of the boxes, the forms are marked to indicate the centers on which the boxes are to be located, or, in other words, on which outlets or fixtures are to be situated. The forms are then drilled to produce relatively small holes on these centers. Over each of the holes is placed an outlet box to which has previously been applied a device 15. With the cover 8 removed it is a simple matter for the workmen to insert a screw, bolt or the like downwardly through the aperture 16 of the device and through the corresponding hole in the form member. While a bolt and nut 19 and 20 are suitable for this purpose, as shown in Fig. 4, I recommend the use of a tapered metal screw 20, as illustrated in Fig. 1. This type of screw cuts its own thread within the hole in the form member and draws the box firmly to its place.

After the boxes are in place the ends of the conduits are projected through knock-out openings from which the usual partially stamped out slugs have been removed; and should it be found that the openings of a box are slightly out of line with the conduits, the central connection between the device 15 and the form member enables the box to be turned until the knock-out openings are

brought into perfect register with the conduits. Furthermore, should it happen that the box was placed with the knock-out openings of one size in line with conduits of a diameter requiring the other size openings, the box may be given an eighth rotation to bring into line with the conduits the openings of proper size. After the conduit connections have been made the cover 8 is placed on the box and secured thereto by the screws 9. The concrete may now be poured. After the concrete hardens the supports 5 are removed and the form members 4 withdrawn from the work. In removing the form members to which boxes are fastened, the devices 15 may go with the form members, buckling sufficiently to allow their ends to be withdrawn from beneath the heads of screws 13. This performance will be the same with either tapered metal screws or bolts and nuts provided the nuts are not first removed from the bolts. Of course if the nuts are removed, the form members may be withdrawn without deforming the devices 15.

Due to the fact that the devices 15 bend so much more readily than the metal forms do, the forms may be removed in the manner above described without the slightest liability of their becoming bent or mutilated.

Having thus described my invention, what I claim is:

1. As a new article of manufacture, a device for temporarily connecting an outlet box to a concrete form, said device comprising a bendable member having an aperture and outwardly opening notches in its edges.

2. As a new article of manufacture, a device for temporarily connecting an outlet box to a concrete form, said device comprising a bendable member having an aperture and outwardly opening notches in its edges, the aperture being substantially midway between said notches and located substantially on a common axis therewith.

3. As a new article of manufacture, a device for temporarily connecting an outlet box to a concrete form, said device comprising a bendable elongated member having a central aperture and notches opening outwardly through its opposite ends.

4. For use with an outlet box having screws at opposed points of its open side, a device for temporarily fastening the box to a concrete form consisting of a bendable member provided with means for attaching it to the form and having opposed portions arranged to be frictionally engaged beneath the heads of the aforesaid screws whereby a slip connection is effected between said device and the outlet box.

5. For use with an outlet box having diametrically opposed screws adjacent its open side, a device for temporarily fastening the box to a concrete form consisting of an elongated metal strap provided at its ends with outwardly opening notches for application to said screws and with a central aperture for the accommodation of means for fastening it to a form.

In testimony whereof, I hereunto affix my signature.

JOHN C. BOYTON.