C. P. OSBORN.

INSERT.

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1,219,762.

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Fig. 1

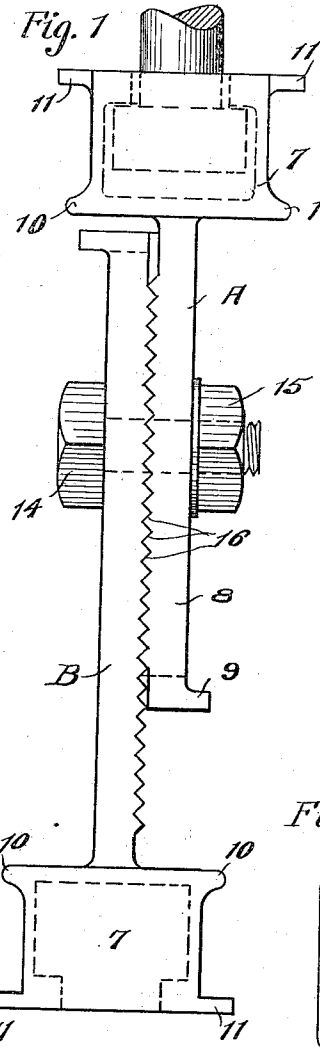


Fig. 2

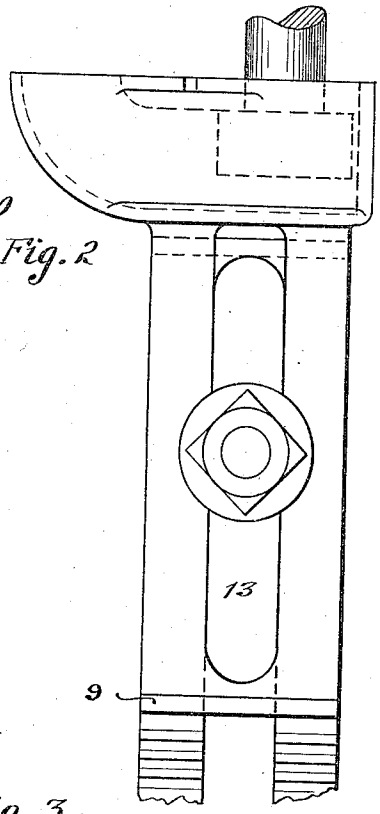


Fig. 4

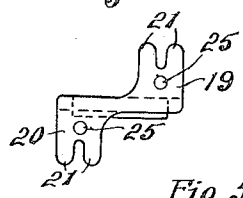


Fig. 5

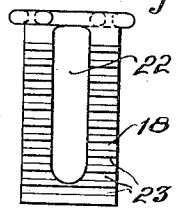


Fig. 3

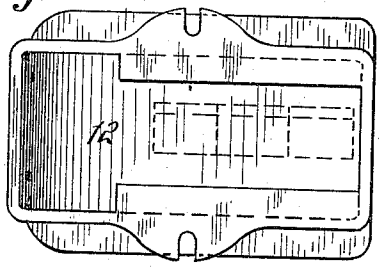


Fig. 6

WITNESSES

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UNITED STATES PATENT OFFICE.

CLARENCE P. OSBORN, OF DAYTON, OHIO, ASSIGNOR TO THE DAYTON MALLEABLE IRON COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO.

INSERT.

1,219,762. Specification of Letters Patent. Patented Mar. 20, 1917.

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To all whom it may concern:

Be it known that I, CLARENCE P. OSBORN, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Inserts, of which the following is a specification.

This invention relates to inserts for concrete work and it has reference primarily to the provision of extensible or adjustable floor and ceiling hangers which may be readily adapted to suit a variety of different conditions in building operations, such for example as varying thicknesses in walls or ceilings. My invention further contemplates an improved insert of the character described which is capable of use in connection with supports for sleepers or building members of similar character.

The foregoing together with such other objects as may hereinafter appear, or are incident to my invention, I attain by means of a construction which I have illustrated in the accompanying drawings, wherein—

Figure 1 is an end elevation of my improved insert; Fig. 2 is a side elevation of the device shown in Fig. 1, broken away at the bottom; Fig. 3 is a plan view of Fig. 2; Figs. 4 and 5 are respectively a plan and a side elevation of the improved form of sleeper support used in connection with my insert; and Fig. 6 is a sectional view through concrete wall structure illustrating the application of my invention.

Referring particularly to Figs. 1, 2, and 3, it will be seen that my improved insert is composed of two members A and B, which are preferably duplicates of one another in general construction and which are each composed of a hollow base 7 and a shank 8 provided with a flange 9. The base 7 is provided with flanges 10 adjacent the top and at the bottom with oppositely disposed nail ears 11, and is also provided with a key hole opening 12 into which the head of the bolt or a nut on a bolt may be inserted. The narrow portion of the key hole opening is of considerable length so as to provide a fair range of adjustment.

Each of the shanks 8 is provided with a vertically extending slot 13 adapted to receive the shank of a bolt 14, the end of the bolt shank being threaded to receive a nut 15. The adjacent faces of the shanks 8 are provided with a plurality of laterally disposed teeth 16 which are adapted to interlock when the insert members are clamped together by means of the bolt 14 and nut 15 as shown in Fig. 1. From inspection of this figure it will be seen that a considerable range of adjustment of the length of the insert is afforded and it will also be observed that while the two members A and B are substantially counterparts, the shank of the member B is slightly longer than that of the member A. It will be clear that three different ranges of adjustment are provided by this construction, namely, the coupling of two short members, two long members, and a long and a short member, the latter combination being shown in the drawings. One of the chief advantages of this construction is that the insert may be adapted to suit a variety of different conditions in a number of different operations, while at the same time, only two standard sizes of stock need be made.

Referring to Fig. 6, the insert above described is shown at the left hand end of said figure. In practice the base of one of the members is nailed by means of ears 11 to the mold form 17 in the position indicated in Fig. 6 after which the concrete is poured to the desired level and the mold form removed. The concrete securely holds the insert in position by virtue of the shape of the latter and it will be clear that a variety of fixtures may be hung from or positioned by bolts inserted into the hollow bases 7 in the manner indicated in Figs. 1 and 2. For example, pipe lines, shaft hangers, and beams may be hung from ceilings, fire extinguishers or shelving from the walls, and machinery positioned on the floors.

Referring now to Figs. 4 and 5 particularly, I have therein illustrated a sleeper support adapted to be used in connection with my improved insert. The sleeper support comprises a shank 18 and a base preferably composed of two oppositely disposed flanges 19 and 20 provided with nail ears 21. The shank is provided with a slot 22 and with laterally disposed teeth 23 as in the construction previously described. Where it is desired to support a sleeper or other member of similar character above a point where an insert is to be placed, the sleeper support is substituted for either the member A or the member B and the parts fastened together by the bolt 14 as before.

This arrangement of parts is illustrated in Fig. 6, the sleeper being indicated by the numeral 24. The base of the insert B is nailed to the form 17 and the support 18 is nailed to the sleeper. It will be obvious that with this construction the sleeper may be adjusted to any desired position with respect to the floor line and will be securely held in place.

In some cases it is desirable to provide an insert only on one face of a wall or floor, in which event a support may be used in connection with an insert in the manner illustrated at the right hand end of Fig. 6. As there illustrated, the insert is positioned by nailing the support to the form 17. It will be apparent that where there is to be a fixture engaging insert on both faces of the wall, that the base of each member serves as a support for the other member and prevents pulling out the members from the wall. In cases where it is desirable to attach a fixture to the flanges on the shank 18 of the structure shown in Figs. 4 and 5, I provide threaded holes 25 in said flanges adapted to receive a tap screw or the like.

What I claim is:

1. An extensible insert for concrete structures comprising a pair of members each composed of a shank and a base, and means for adjustably fastening the shanks together, one of said bases being hollow to permit the introduction of fixture means, and the other base having a face adapted to serve as a support, all so arranged that the insert may be embedded in the concrete either end to.

2. An extensible insert for concrete structures comprising a pair of members each composed of a shank and a base, and means for adjustably fastening the shanks together, said bases having a hollow portion adapted to receive fixture means and a portion adapted to serve as a means of support whereby either end of the insert may be used as a fixture support or as a means of support.

3. An extensible insert for concrete structures comprising a pair of members each composed of a shank and a base, and means for adjustably fastening the shanks together, said bases being recessed to receive a fixture means and being adapted also to serve as a support whereby either end of said insert may be used as a fixture support or as a means of support.

In testimony whereof I have hereunto signed my name in the presence of the two subscribed witnesses.

C. P. OSBORN.

Witnesses:
FRED'K SCHENCK,
W. H. CASSEL.

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