Dec. 31, 1929. W. O. ISAACSON 1,741,776

ANCHOR

Filed Oct. 28, 1926

Fig. 1.

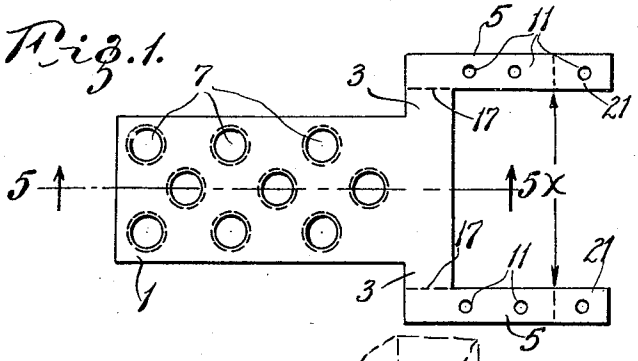


Fig. 7.

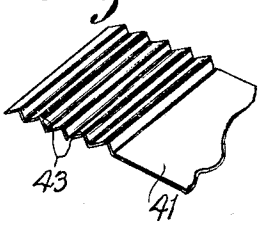


Fig. 2.

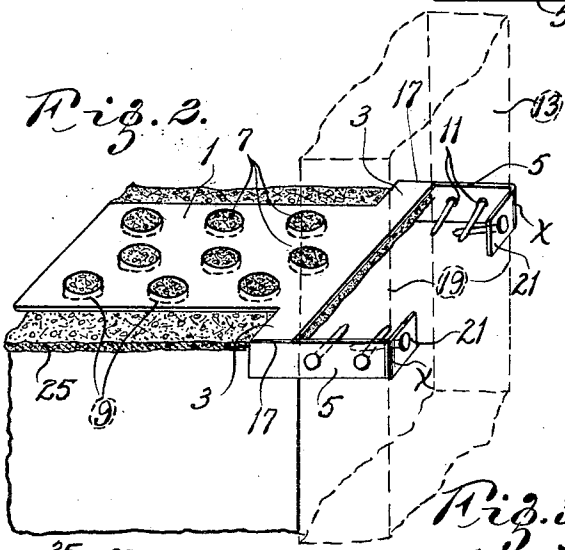


Fig. 6.

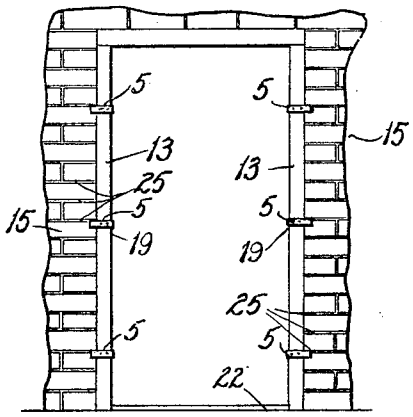


Fig. 3.

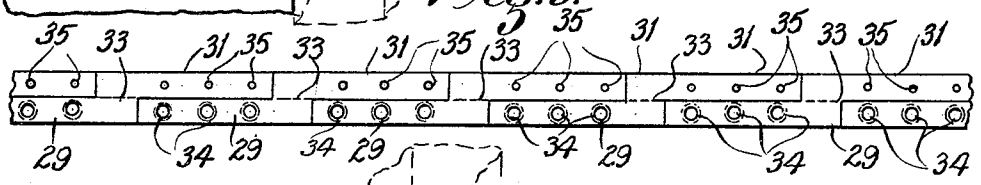


Fig. 4.

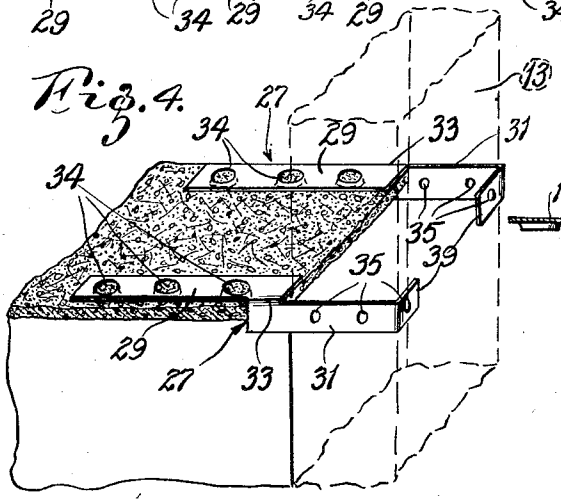
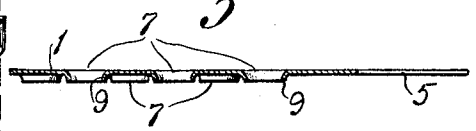


Fig. 5.



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UNITED STATES PATENT OFFICE

WILLIAM O. ISAACSON, OF CHICAGO, ILLINOIS

ANCHOR

Application filed October 28, 1926. Serial No. 144,729.

This invention relates to anchors for fastening bucks and the like into place, and with regard to certain more specific features to an anchor of the class described, adapted to be tightly imbedded in walls or the like.

Among the several objects of the invention may be noted the provision of an anchor adapted to be readily fastened to various sizes of objects to be held, the provision of means for readily but permanently setting the anchor in a wall or the like, and the provision of a compact and simple device which is exceedingly easy to manufacture and to put into use. Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly comprises the elements and combination of elements, features of construction, and arrangements of parts which will be exemplified in the structure hereinafter described, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings in which are illustrated two of various possible embodiments of the invention,

Fig. 1 is a flat plan view, prior to bending, of one form of the anchor, to be referred to hereinafter as the single anchor;

Fig. 2 is a perspective view illustrating the application of the single anchor;

Fig. 3 is a flat plan view of another form of the anchor, to be referred to hereinafter as the double anchor, and shows how this double anchor is formed from a single strip of material;

Fig. 4 is a perspective view illustrating the application of the double anchor;

Fig. 5 is a fragmentary longitudinal section taken on the line 5—5 of Fig. 1, and illustrates certain embossed portions common to the two forms of anchor;

Fig. 6 is a side elevation of a door buck in place, showing the application of either form of the anchor; and

Fig. 7 is a fragmentary perspective view showing a modification.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring now more particularly to Fig. 1, there is illustrated a stamping, composed preferably of sheet metal and comprising a substantially flat holding plate or engaging element 1, at one end of which are formed sideward extensions 3. A pair of arms 5 are angularly arranged with respect to the extensions 3.

The holding plate 1 is provided with a plurality of openings or tubular elements 7 which are embossed in such a manner that their peripheries form protruding rims 9. It is evident from the drawings that the tubular elements have a greater axial length than the thickness of the plate from which they are embossed. The edges of these rims are inherently somewhat sharp due to the embossing operation. The arms 5 are preferably provided with small openings 11 for accommodating nails or other fasteners, the use of which is to be hereinafter described. These openings 11 are not required if the anchor is made of material which is thin enough to permit of driving a nail directly therethrough.

It is evident that the single anchor may be cut with a single die and embossed at the same operation, thereby providing easy manufacture.

The purpose of the anchor is to hold door bucks 13 or the like (Fig. 6) in proper relationship with respect to a wall 15 or the like. In order to apply an anchor of the type illustrated in Fig. 1, the arms 5 are bent downwardly (preferably at right angles) along lines 17. The distance between the inner flat faces of the arms, after bending, is equal to the width of the leg of the buck to which the anchor is to be applied.

The lengths of the arms are greater than the thickness of the leg of the buck to which the anchor is applied. The inner edges 19 of the legs of the buck are adapted to cross the arms at substantially a line X. By this means, end flaps 21 are provided which may be bent around the inside of the leg 13 when the anchor is applied.

The complete operation in setting a buck with this form of anchor is as follows:

The buck is placed on the floor 22 as the wall 15 is built up. The wall may comprise a

brick, tile or any other masonry or other construction which will accommodate the placement of the anchor in a soft material which will later harden around said anchor. One particular and advantageous form of material used at present comprises light weight blocks which are used for partitions and the like where little structural strength is required and light weight is desirable. The blocks are made of material that is soft enough to be readily indented.

The wall 15 is built up around the buck 13 up to a predetermined level and mortar is used between the successive courses of blocks. At said predetermined level an anchor (which already has its arms 5 bent at right angles with respect to the plate 1 and extensions 3) is slipped over the buck with said arms engaging the sides of the buck leg 13. Before the holding plate 1 is lowered to the wall construction, a layer 25 of mortar is applied on the last course of said wall construction. The holding plate is then brought down so that the downwardly extending embossed lips 9 are pressed therein. The workman then taps or hammers the holding plate with his trowel or other tool. If the blocks of the wall are made up of the relatively soft material above described, then the lips 9 will be pressed therein. If the blocks are made of harder material, the mortar is depended upon to hold the anchor.

Next, a layer of mortar is applied above the anchor and the next course of building blocks applied. It may be seen from the above, that the lips 9 provide a positive grip in the building blocks, and are furthermore keyed by the action of the mortar which flows into the opening 7 from above and from below.

After this the lapping or flap portions 21 may be bent around the inside of the leg 13. Both the arms 5 and the lap portions 21 may now be nailed or otherwise fastened. It is to be understood that the material of which the anchors are made may vary in thickness and as a consequence the openings 11 may sometimes be dispensed with, that is, when the material is thin enough to drive the nail directly therethrough.

The application of an anchor may be repeated at optional intervals as a wall is built up.

The single anchor may be made in various sizes to accommodate various standard sizes of bucks. However, some odd sizes of bucks are encountered for which the modified form of double anchor is used, shown in Figs. 3 and 4. This modified form may also be applied to standard sizes of bucks.

Each double anchor comprises a pair of units 27. Each unit 27 comprises a holding plate 29 from one side of which extends an arm 31 adapted to be bent angularly with respect to the holding plate 29 along a line 33.

The elements 27 of the double anchor may be economically punched from a strip as illustrated in Fig. 3 by "nesting" the pattern. The holding plates 29 are provided with openings 34 which are also embossed in the manner described for the openings 7 in the above described form. Nail holes 35 are provided when the material of the anchor is relatively thick.

For applying this double anchor, the wall is built up in the same way with respect to the buck. After mortar has been applied to the last course at a predetermined level the arms 31 of a pair of double anchors are brought up against the sides of the leg of the buck with the holding plates 29 placed in the mortar. The lips of the embossed openings 33 may be driven into the building blocks or left free as in the case of a single anchor. After mortar is applied above the holding plates 29 and the next course of building material applied, the lapping ends or flaps 39 of the arms 31 may be bent around the buck leg. The arms and flaps are then nailed as before. It is evident from the above that the double anchors may be applied to any width of buck because the relationship between the arms 31 of a pair is not fixed.

It is to be understood that in either of the forms of anchor, bending along lines such as 17 and 33 may be accomplished at the time of manufacture or be left to be accomplished by the workmen at the time of application of the anchor. Either process has its advantages.

With regard to the double anchor modification, it should be noted that right and left elements are required, so that after the elements 27 are punched out of the material strip, one-half of them should be bent in one direction along their respective lines 33 and one-half of them should be bent in the opposite direction on their respective lines. Likewise the embossing for the openings 34 should preferably extend in the direction that the respective arms 31 are bent.

It is to be understood that the key openings such as 7 and 34 may be embossed upwardly or alternately upwardly and downwardly.

In Fig. 7 is illustrated a form of holding plate 41 to which corrugations 43 are applied instead of embossed openings. This form of plate also provides an excellent grip for the anchor where it is desired to have the mortar do all the gripping.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As many changes could be made in carrying out the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompany-

ing drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. An anchor of the class described comprising a holding plate, means thereon for gripping said plate to the blocks comprising the courses of a wall, said means being also adapted to permit keying of the plate by the mortar between said courses, sideward extensions on the plate adapted to engage a buck, separate arms extending from said extensions formed in a plane at right angles to said holding plate and extended flaps on the arms adapted to be bent around the leg of a buck as said arms engage the sides of said leg.

2. An anchor of the class described comprising a holding plate, means thereon for gripping said plate between the blocks comprising the courses of a wall, sideward extensions joined to the plate and positioned substantially at right angles thereto, the extensions having extending arms adapted to engage a buck.

3. An anchor of the class described comprising a holding plate, means thereon for gripping said plate between the blocks comprising the courses of a wall, sideward extensions joined to the plate and positioned substantially at right angles thereto, the extensions having extending arms adapted to engage a buck, and means for fastening said arms to the buck, said arms being exposedly positioned in part against the sides of the wall and substantially at right angles to said plate.

In testimony whereof, I have signed my name to this specification this 19th day of October, 1926.

WILLIAM O. ISAACSON.