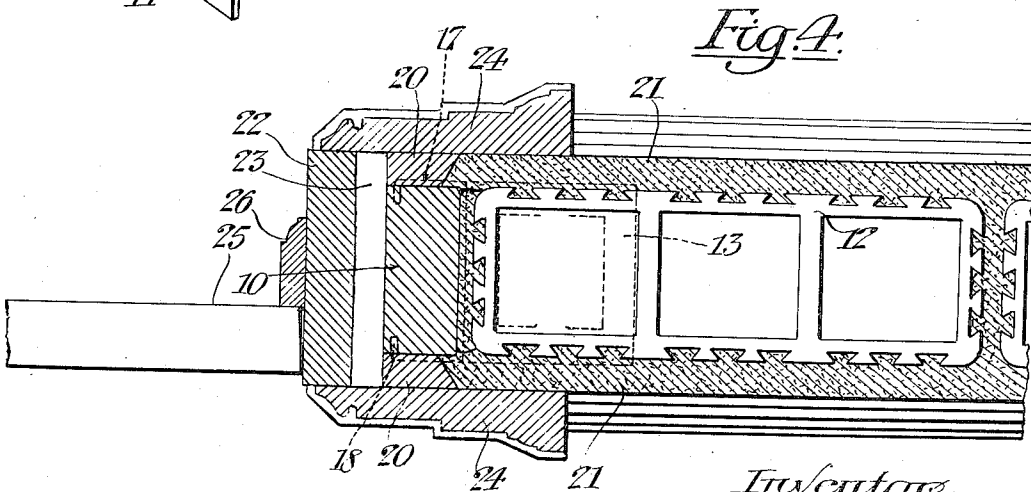
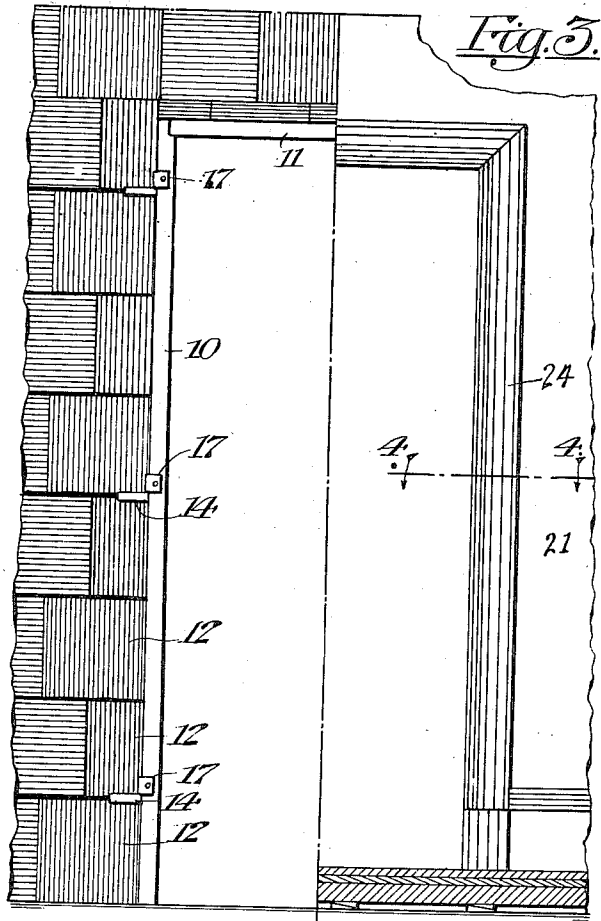
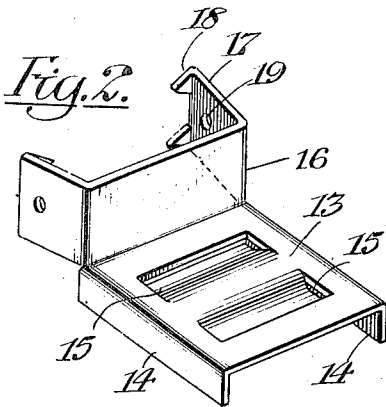
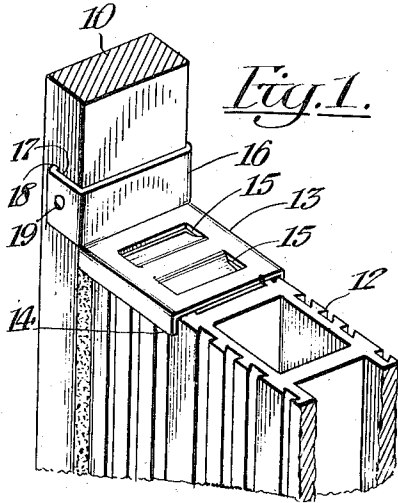


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BUCK CLAMP.

APPLICATION FILED AUG. 19, 1916.

1,226,045.

Patented May 15, 1917.



Witness:

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UNITED STATES PATENT OFFICE.

CHARLES W. WOLFE, OF NEW YORK, N. Y.

BUCK-CLAMP.

1,226,045.

Specification of Letters Patent.

Patented May 15, 1917.

Application filed August 19, 1916. Serial No. 115,809.

To all whom it may concern:

Be it known that I, CHARLES W. WOLFE, a citizen of the United States, and resident of the city of New York, Woodhaven, borough of Queens, in the county of Queens and State of New York, have invented certain new and useful Improvements in Buck-Clamps, of which the following is a specification.

10 This invention relates to building construction and more particularly to the binding or rigid securing of doorway frames in walls formed of terra cotta or other blocks.

In one type of doorway and partition wall construction, now in common use and to which my invention is especially applicable, a rough door frame usually of two-by-fours is first set by the carpenter and suitably anchored. The side members of this 20 frame are known in the trade as "bucks." The partition of terra cotta blocks is then built up to the bucks and anchored thereto by driving nails partway into the outer surfaces of the bucks at such elevations that 25 their heads and projecting parts may be embedded in the cement between superposed courses of the terra cotta blocks.

This method of anchorage of the partition and the bucks is open to many objections. 30 The workmen often forget or neglect to put in any or a sufficient number of anchoring nails. Their presence or absence cannot be readily determined by the inspector when the wall is up. The driving in of each nail 35 tends to loosen, jar out, or crumble the recently laid cement in the courses below. Shrinkage of the buck tends to either loosen the anchoring nails or increase the size of the doorway opening. As the nails are only 40 in the back surface of the buck, the latter is liable to twist or to move laterally by a bending or loosening of the nails. The nailing of the plaster grounds, jamb, trim, etc., tends to loosen the anchoring nails or dis- 45 place the buck and any movement of the buck after the plastering has been completed tends to break the plaster, often to a point beyond the edge of the trim. These and various other objections have long been recog- 50 nized in the trade but so far as I know, attempts to overcome them have not met with complete success.

The main object of my invention is to provide a simple, inexpensive and easily applied clamping device which will positively 55 and firmly grip the buck and hold it against

any movement in respect to the partition and which will overcome each and all of the objections hereinbefore mentioned.

My improved buck clamp is preferably 60 formed of sheet metal and includes an anchor portion which may be embedded in the cement between courses of terra cotta blocks and a clamping portion which receives the buck and which may be positively secured 65 thereto after the cement has taken its permanent set and before the plaster grounds, jamb, trim, etc. are applied.

In the accompanying drawings I have illustrated one embodiment of my invention, 70 although I wish it particularly understood that various other embodiments may be designed within the scope of my invention as defined in the appended claims. The form shown is therefore to be considered in an 75 illustrative rather than in a limiting sense. In these drawings—

Figure 1 is a perspective view of a portion of a wall showing my improved clamp in position, 80

Fig. 2 is a perspective view of the clamp itself.

Fig. 3 is an elevation of a doorway, the right-hand side showing the completed construction and the left hand side showing 85 merely the terra cotta blocks, buck and clamp, and

Fig. 4 is a transverse section on the line 4—4 of Fig. 3 but on a considerably larger scale. 90

In building the specific construction illustrated, a rough doorway frame formed of two-by-fours and including side members or bucks 10 and a top member 11 is first placed in position and held by temporary 95 braces. The body of the partition is then built up of courses of terra cotta blocks 12. These blocks are usually hollow with one or more partitions and have their outer surfaces grooved or otherwise roughened 100 to facilitate the adhesion of the plaster. As the wall is being built up, I insert between certain of the adjacent courses my improved buck clamp. As many of these clamps may be employed as desired but 105 in actual practice they need not be used with every course and three for each buck will ordinarily be sufficient. Each clamp is formed of a single piece of sheet metal cut and bent to form an anchor portion 110 and a clamping portion. The anchor portion in the specific form illustrated includes

a rectangular body 13 of a width substantially equal to the thickness of a terra cotta block and having side flanges 14 for engagement with the opposite surfaces of the block. The body 13 has suitable apertures, indentations, flanges or projections or other surface irregularities whereby a firm and efficient grip in the cement may be secured. As illustrated, these surface irregularities take the form of two opposed transversely extending U-shaped slots cut in the body portion to leave tongues 15 extending across the block and bent out of the plane of the body and preferably downwardly therefrom.

The clamping portion is integral with the anchoring portion at one end of the latter and is illustrated as including a rectangular body 16 bent to lie in a vertical plane at right angles to the plane of the body 13. This body 16 at each end has flanges or gripping jaws 17 spaced apart a distance substantially equal to the width of the buck and serving to receive the latter therebetween. These jaws 17, at their outer or free ends have one or more teeth or prongs 18 bent inwardly to lie at right angles to the body of the jaw and adapted to be driven into the opposite sides of the buck. The jaws adjacent to their outer edges may also have apertures 19 adapted to receive nails, screws or other fastening means whereby the jaws may be properly held in position in engagement with the sides of the buck.

After the first terra cotta block is placed in position, my improved clamp is placed thereon with the depending flanges 14 receiving therebetween the block and with the clamping jaws 17 extending along opposite sides of the buck. My improved device as manufactured preferably has the jaw 17 slightly diverging as shown in Fig. 2 so that the buck may freely pass between the points of the teeth or prongs 18. Cement is then applied to the upper surface of the body 13 and the next block is placed in position. This operation is repeated until the wall reaches the desired height. The clamps need not be put in after each course but only at such points as may be necessary to give the desired strength. After the cement has taken its permanent set, the flanges 17 are bent toward each other and the teeth 18 driven into the sides of the buck. At the same time the flanges are additionally secured in place by nails or other fastening members inserted through the openings 19. As the cement has hardened before the clamp is secured to the buck and as the anchor plate 13 cannot turn by reason of its flanges 14 and the tongues 15, it is evident that the bending of the flanges 17 or the driving in of nails to the buck will not tend to loosen the

cement. It will be noted that the teeth 18 enter into the buck adjacent to the face of the buck farthest from the wall and that therefore, in case the buck shrinks, it may draw away from the plate portion 16 but the opposite face will be held in proper position and alinement. As both the flanges 14 and 17 are exposed to view before the trim is put on, it is evident that an inspector may readily determine whether or not the workman has inserted the proper number of clamps to adequately hold the buck.

After the clamp is secured to the buck, the doorway may be finished. As shown in Fig. 4, plaster grounds 20 are secured to opposite sides of the buck and these, together with the plaster 21 entirely conceal the clamp. The jamb 22 is secured to the outer face of the buck and held vertical by suitable spacing blocks 23. The trim 24 is secured to the jamb and extends back over the edge of the plaster. As the trim, jamb and plaster grounds are all rigidly secured to the buck, it is evident that my improved clamp will also hold these parts rigid in respect to the body of the wall. Furthermore, the device holds the buck against any movement during the nailing of the other parts thereto and prevents any loosening of the frame by the violent contact of the door 25 with the stop 26 on the jamb.

The specific clamp which I have shown; particularly in Fig. 2 is adapted for use with partition walls including terra cotta blocks and two-by-four bucks. It is of course evident that for thicker or thinner walls, a clamp of different relative proportions would be necessary or at least desirable and that the details of the anchoring portion and of the clamping portion may be varied in accordance with the character of the wall and of the door frame. In some cases, more particularly thick walls, I might save material and thereby reduce the cost of the clamp by making the clamp of two separate sections each including a single flange 17 and a single flange 14 with appropriate parts corresponding to portions of the plates 13 and 16. These plate portions might extend in only a limited distance from the surface of the wall and need not meet the corresponding parts of the other section. By thus making the clamp of two sections, it may be adjusted to any width of wall and for a particularly thin wall, the plate portions may be overlapped.

The construction is not limited to use with any particular character of building block as a wall formed of brick, stone, cement block or other similar form of building material may be secured to a door frame, window frame or other structural unit by a clamp constructed either as illustrated or with appropriate modification and within the scope of my invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

5 1. A buck clamp, including an anchor plate adapted to be embedded in the concrete between superposed wall blocks, and having opposed, substantially parallel, side flanges both extending in the same general direction to embrace the opposite sides of
10 a wall block, a plate portion at one end of said anchor plate and extending substantially vertically in the opposite direction from said side flanges, for engagement with the face of a buck, and flanges at opposite
15 ends of said second mentioned plate and spaced apart to receive the buck therebetween, said flanges having inturned terminal portions constituting teeth spaced from said vertical plate to a distance greater than one-
20 half the thickness of said buck and adapted to be driven into said buck adjacent to the face thereof away from said vertical plate.

2. A buck clamp including an anchor plate adapted to be embedded in the concrete between superposed wall blocks and having
25 opposed, substantially parallel, side flanges extending downwardly to embrace the oppo-

site sides of the wall block therebeneath, a plate portion at one end of said anchor plate of a width substantially equal to the width
30 of the buck and extending upwardly for engagement with the back face of a buck, flanges at the opposite ends of said second mentioned plate to receive the buck therebetween and engage with the opposite side
35 thereof, and means for securing said last mentioned flanges to the opposite sides of the buck.

3. A buck clamp including an anchor plate adapted to be embedded in the concrete between superposed wall blocks, a plate portion at one end of said anchor plate and extending vertically between one of the wall blocks and the buck, flanges upon opposite
40 ends of said last mentioned plate and extending in the same general direction and spaced apart to receive the buck therebetween, and means for securing said flanges to the buck at points adjacent to the face of
45 the latter away from said vertical plate.

Signed at New York city, in the county of New York and State of New York, this 18th day of August, A. D. 1916.

CHARLES W. WOLFE.