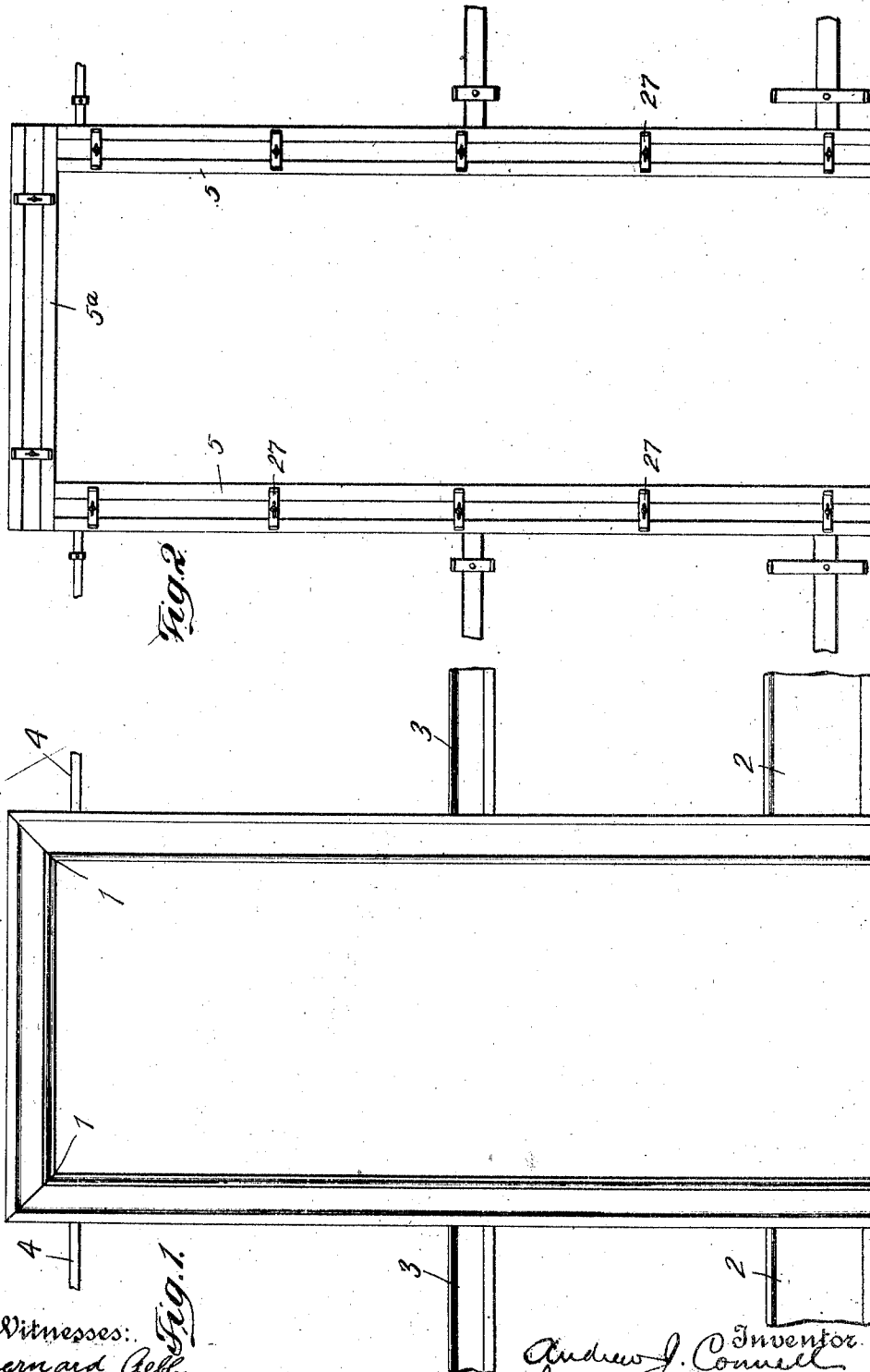


A. J. CONNELL.
 METALLIC DOOR FRAME BUCK AND TRIM FASTENING.
 APPLICATION FILED AUG. 18, 1914.

1,308,276.

Patented July 1, 1919.
 3 SHEETS—SHEET 1.

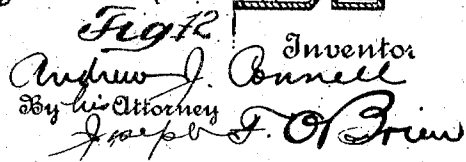


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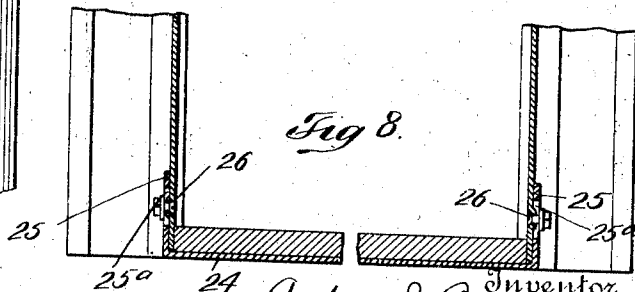
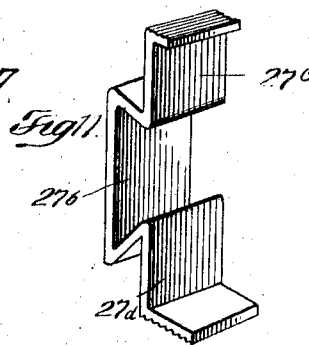
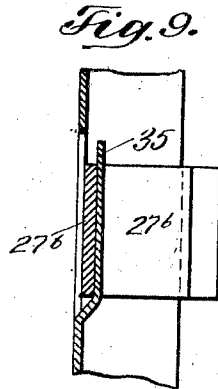
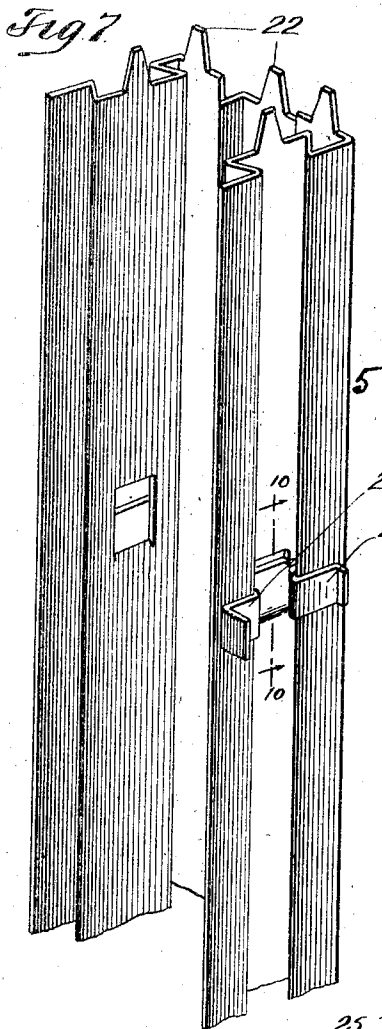
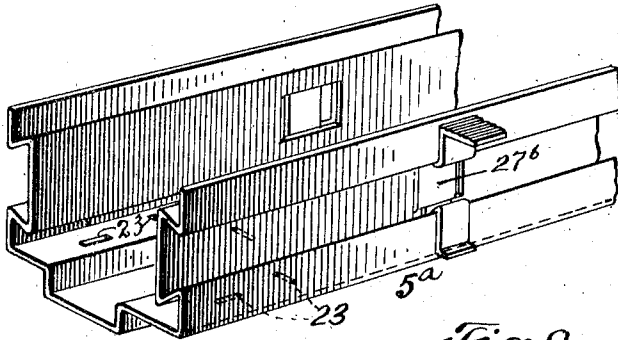
3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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METALLIC DOOR-FRAME BUCK AND TRIM-FASTENING.

1,308,276.

Specification of Letters Patent.

Patented July 1, 1919.

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To all whom it may concern:

Be it known that I, ANDREW J. CONNELL, a citizen of the United States, and a resident of College Point, New York, have invented certain new and useful Improvements in Metallic Door-Frame Bucks and Trim-Fastenings, of which the following is a specification.

This invention relates to improvements in metallic door-frame bucks and trim-fastenings.

By the use of my invention I am enabled to produce a metallic buck which will be strong and durable; may be readily, securely and inexpensively anchored in place; may be made of standard patterns in the shop and shipped to and installed in a building with great facility, and will provide, first, a suitable integral channel and abutments for engaging suitable sheet metal anchors and also a trim-retaining or ground groove at opposite sides in which will be seated a wooden ground to permit the ready and quick fastening of sheet metal trim.

Another feature of my invention is the provision of a concealed trim-fastening preferably comprising a clip formed of rigid material having toothed racks at opposite ends, in combination with a molding or other trim section of sheet metal having inwardly-extending backwardly-inclined flanges at opposite edges adapted to spring into locked engagement with the rigid toothed racks upon the opposite edges of such clips.

In the accompanying drawings in which similar reference characters designate corresponding parts throughout the several views,

Figure 1 is an elevation of a door-frame and surrounding wall embodying my invention;

Fig. 2 is a view of the door frame and wall illustrated in Fig. 1 with the trim removed from the bucks;

Fig. 3 is a perspective view of a transverse section of the buck and portion of wall showing the method of anchoring the buck in place;

Fig. 4 is a transverse section of a stile showing my improved buck provided with a wooden door bumper or sound deadener in-

termediate the trim and buck and also showing one method of fastening the trim to the wooden grounds of the buck;

Fig. 5 is another transverse section illustrating my preferred method of attaching the trim to the buck and showing the employment of my preferred form of concealed trim fastening clip;

Fig. 6 is another transverse section illustrating another method of securing the trim-fastening clip to my said buck;

Fig. 7 is a perspective view of a stile and head rails of my improved buck showing the method of securing the same together at the upper corners and also showing another form of trim fastening clip and means for securing the same to the buck;

Fig. 8 is a longitudinal section showing an adjustable connection between the stiles of the buck and the connecting-channel below the floor or saddle;

Fig. 9 is a fragmentary longitudinal section on the line 10-10 of Fig. 7, looking in the direction of the arrow;

Fig. 10 is a detail view in perspective of the trim-fastening clip illustrated in Figs. 5 and 6 respectively;

Fig. 11 is a similar view of the trim-fastening clip illustrated in Figs. 7 and 9 respectively.

Fig. 12 is a transverse section showing a modified form of buck.

Fig. 13 is a section of a modified form of trim fastening clip and means for securing the same to the buck; and Fig. 14 is a detail in perspective of the clip and fastening device of Fig. 13.

Referring now to these drawings, 1 indicates a door-frame comprising a sheet-metal buck suitably anchored in place and sheet metal trim connected thereto. 2 designates sheet metal base molding on opposite sides of such door frame, 3 sheet metal chair-rail molding and 4 sheet-metal picture molding, all of which trim I am enabled to quickly apply by the use of my invention.

5-5 (Fig. 2) designate the stiles of a door-frame buck and 5^a designates the head rail thereof. The buck is preferably rolled up and bent as shown in Figs. 3, 5 and 7 from a single piece of sheet metal to provide an edge plate 6, and integral side plates

7—7^a, the edge plate forming the jamb of the door and preferably having an integral stop molding 6^a, and each side plate being bent to form integral and inwardly extending dove-tailed grooves as at 8—8 at opposite sides, leaving the central portion hollow to permit ready anchoring of the buck and a filling in thereof with the material of the wall.

10 The opposing inwardly extending dove-tailed grooves 8—8 have two functions, first, they permit the insertion and nailless fastening to the buck of grounds 9—9 of wood or other suitable material so that the side-trims 10—10 may be readily and quickly secured in place by nails or screws 11, and secondly, the inward extension of one shoulder of opposite grooves provides a channel 12 to permit the insertion of anchor plates 13 having oppositely and outwardly projecting ears or flanges 14 which engage in the said channels 12. The anchor plates 13 are preferably provided with a series of holes or apertures 15 to permit a more solid embedding or keying thereof in the plaster or other plastic material of the wall 16.

In Fig. 4 I have shown a slightly modified form of construction in which the edge plate 6^b of the buck is formed flat and without an integral door stop molding, and a bumper or sound deadener 17 of wood or other suitable material is secured to such flat face by screws 18 or in any other suitable manner, the metallic jamb 19 of the door frame which has a door stop portion 19^a being subsequently applied and fastened to said bumper or sound deadener 17 by nails 20 or in any other suitable manner. In such constructions, the door 21 may be closed with less noise than in the case of an all-metal door jamb and buck.

In Figs. 5, 6, 7, 9, 10, 11, 13 and 14, I have shown a novel clip construction for fastening the trim in place upon the buck.

45 Fig. 5 shows my preferred form of trim-fastening clip, which embodies a rigid web plate 27 and outwardly extending flanges 28—28^a at opposite sides thereof, the outer edges of each of such flanges 28—28^a being provided with fine teeth 29—29^a and the opposite edges of the trim 10 being preferably provided with inwardly inclined marginal flanges 30—30^a which are adapted to slide over the teeth 29—29^a at opposite sides of such web portion 27 and interlock therewith so that the corner 30 may be forced for a slight distance into the plaster of the wall, thereby causing a neat finish and insuring the close fitting of the trim to the material of the wall.

60 In Fig. 6, I have illustrated means for attaching clip 27 to the buck without the use of wooden grounds, which means will also permit the adjustment of the clip laterally

in relation to the buck so as to enable the trim to be properly positioned relatively thereto. The clip used in said figure is in all respects similar to the clip above described except that instead of the nail aperture it is provided with a slot 31 through which extends a bolt 32 which connects the clip with an anchor or key 34 adapted to frictionally engage the walls of the dove-tailed grooves 8—8 of the buck, the bolt 32 extending through the slot 31 and through a web or face portion 34^a of said key. The said key 34 is wedged into the groove by means of any suitable wedge which will cause the rearwardly extending angular legs 34^b—34^b to spread laterally and frictionally engage the walls 8 of the groove. If desired the wedge instrument which may comprise a small piece of wood or metal may be left inserted in the groove for the purpose of more securely retaining the clip in position.

85 In Figs. 7, 9, and 11 I have shown another device for attaching a trim-fastening clip within the slots 8 of the buck. In such figures the body or rigid web 27^b of the clip is bent into the same form as the groove 8 and is retained in place therein by means of a tongue 35 struck up from the metal of the bottom of the groove. In other respects, the clip is the same as above described.

In Fig. 7 I have shown my preferred method for securing the stiles and head rails together at the top corners, and Fig. 8 illustrates my preferred means of adjustably connecting the floor channel to the opposite stiles.

100 Referring now to the corner connection shown in Fig. 7, I provide a series of lugs 22 which in the assembling of the stiles and head rails are inserted in slots 23 in the head rail and are then turned or folded down, whereupon the stiles and head rails will be securely connected together.

In Fig. 8, a channel 24 which usually rests upon the beams or concrete of the floor is provided with opposite vertically extending flanges 25—25 having slots 25^a—25^a through which extend bolts 26—26 which enter apertures in the jamb plates of the stiles of the buck and permit an adjustable connection of the same with said floor channel.

115 Figs. 13 and 14 show another modified form of trim-fastening clip and means for securing the same to the buck. In said figures, 35 is a clip the opposite ends of which engage the inwardly inclined marginal flanges 30—30^a of the trim, there being a single rounded projecting portion at each end, behind which the flanges 30—30^a lock. Said clip 35 preferably has an integral horizontal portion 35^a provided with an adjusting slot 35^b and is secured in place by a dove-tailed securing element 36 fitting within the groove 8 but is of less depth than the

same. Said securing element has a horizontal portion 36^a provided with a suitable screw-threaded aperture for the reception of a screw 37 which extends upwardly through the slot 35^b, and also has an upright flange 36^b, which extends through the groove and abuts against the clip. To secure the clip to the buck the screw 37 is loosened; the dove-tailed portion 36 is fitted within the groove 8 and the screw tightened to bring the dove-tailed portion upwardly to impinge against the walls of the groove. Further tightening of the screw will cause the clip to be drawn tightly against the outer surface of the buck.

Having described my invention, I claim:

1. A sheet-metal buck for door frames and like metallic structures embodying a jamb portion and opposing side portions, each side portion bent to provide a groove, and the walls of the opposing grooves being adapted to provide within the buck a substantially T-shaped anchor channel, in combination with a substantially T-shaped anchor adapted upon insertion and axial turning to seat within and engage the walls of said channel to anchor the buck in position.

2. A sheet-metal buck for door frames and like metallic structures comprising a jamb portion and opposing side portions, each side portion bent to provide a groove, and the walls of the opposing grooves being adapted to provide within the buck a substantially T-shaped anchor channel, in combination with a sheet metal anchor comprising a body portion provided with keying apertures and laterally extending flanges, and being adapted upon insertion and axial turning to seat within said channel and engage the walls of said grooves.

3. A sheet-metal buck for door-frames and the like bent to provide a jamb and a side-wall portion, the latter having formed intermediate its edges a groove having a relatively wide body portion and a contracted mouth, a trim, and independent fastening means having a part substantially similar in conformation to, and cooperating with the said groove for securing the trim in place.

4. A sheet metal buck for door-frames and the like bent to provide a jamb and a side wall portion, the latter having formed intermediate its edges a groove dove-tailed in cross-section, a trim adapted to cover said dove-tail groove and means cooperating with the walls of said dove-tail groove for fastening the trim in position.

5. In combination, a metallic trim having yielding marginal flanges extending toward each other, and an interior independent fastening clip comprising a body of rigid material provided at its opposite ends with tooth-projections over which the yielding

marginal flanges of the trim are adapted to be sprung in locking relationship to secure the trim in place.

6. In combination, a metallic trim having yielding marginal flanges extending toward each other and also inclining upwardly, of an independent fastening clip comprising a rigid body having at each end a series of toothed projections over which the said marginal flanges are adapted to be sprung to lock the trim at its opposite edges.

7. The combination with an interior metallic buck bent to form a dove-tailed groove, of a trim-fastening clip and means for attaching said trim fastening clip to the buck comprising a key having oppositely-extending legs adapted to be spread by a wedge to conform to the shape of said groove.

8. The combination with an interior metallic buck bent to form a dove-tailed groove, of a trim-fastening clip and means for attaching said trim fastening clip to the buck comprising a key having oppositely-extending legs adapted to be spread by a wedge to conform to the shape of said groove, a slot and pin connection between such key and the trim fastening clip to permit relative adjustment therebetween.

9. In combination, an interior sheet metal buck having a jamb portion and side portions each side portion having integrally formed dove-tail grooves, each groove providing trim fastening means for the side trims and a portion of the walls of the opposing grooves forming with the jamb face a T-shaped anchor channel, a T-shaped anchor adapted to seat within said channel to anchor the buck in position.

10. The combination with a sheet metal metallic trim having oppositely disposed inwardly projecting resilient marginal flanges at the opposite edges thereof, of a fastening clip for such trim spanning the distance between such flanges and having end portions adapted to engage the oppositely disposed marginal flanges to retain the trim in position.

11. The combination with an interior metallic buck embodying a dove-tailed groove, of a trim fastening clip and means for attaching such trim fastening clip to the buck comprising a wedging element of substantially the same conformation as the groove and a screw for moving the clip and wedging element toward each other to cause the same to impinge against the opposite walls of the groove and secure the clip in position on the buck.

12. The combination with an interior metallic buck embodying a dove-tailed groove, of a trim fastening clip and means for attaching such trim fastening clip to the buck comprising a wedging element of substantially the same conformation but of less

depth than the groove, a screw for moving
the clip and wedging element toward each
other to cause the same to impinge against
the opposite walls of the groove and secure
5 the clip in position on the buck and a slot in
one of the last-mentioned parts to permit
relative lateral adjustment between the clip
and wedging element.

In witness whereof, I have signed my
name to the foregoing specification in the 10
presence of two subscribing witnesses.

ANDREW J. CONNELL.

Witnesses:

JACOB COHEN,

JOSEPH F. O'BRIEN.