C. K. OLBERG.

DOOR CASING.

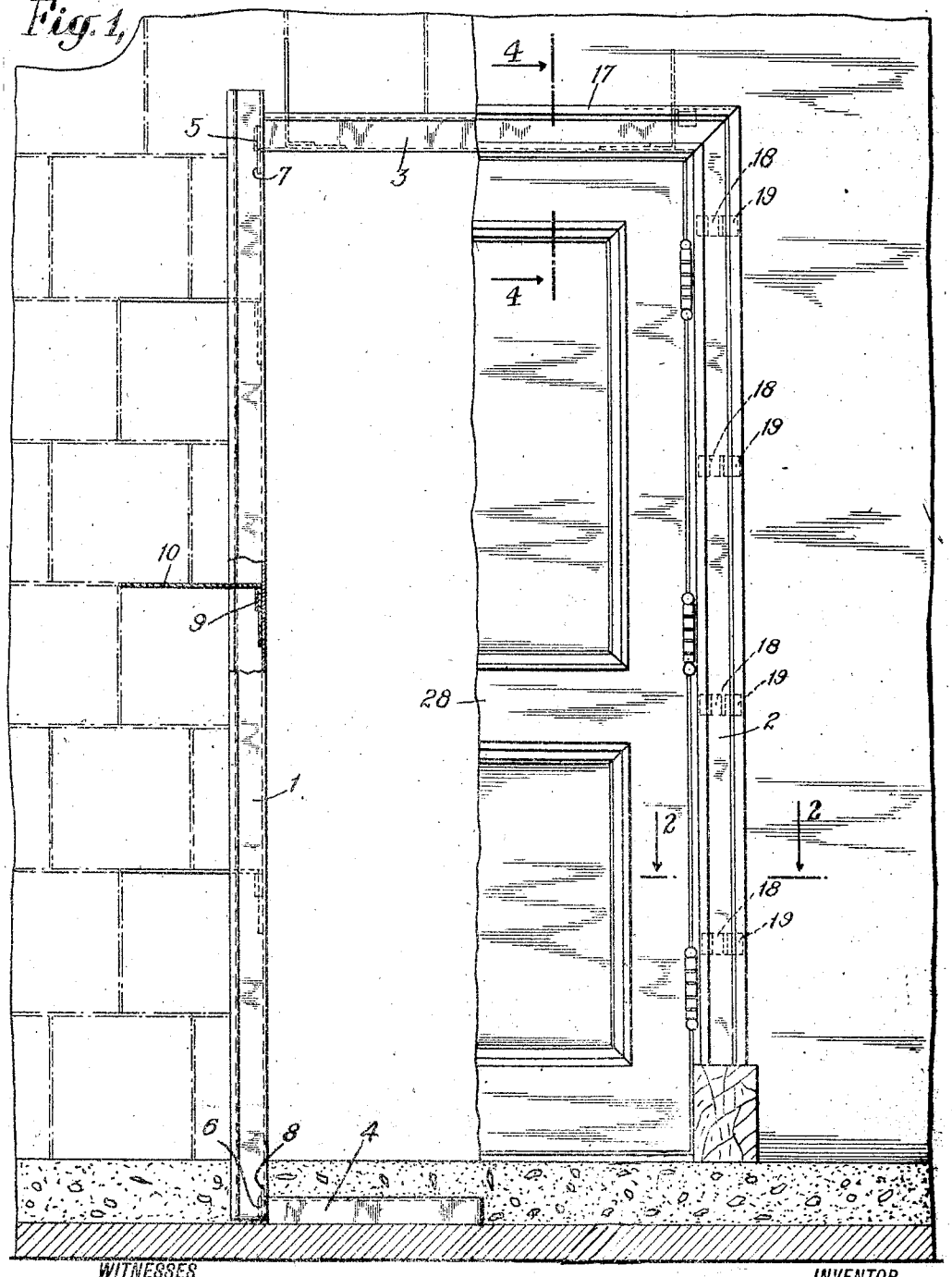
APPLICATION FILED AUG. 10, 1914.

1,187,544.

Patented June 20, 1916.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 2,

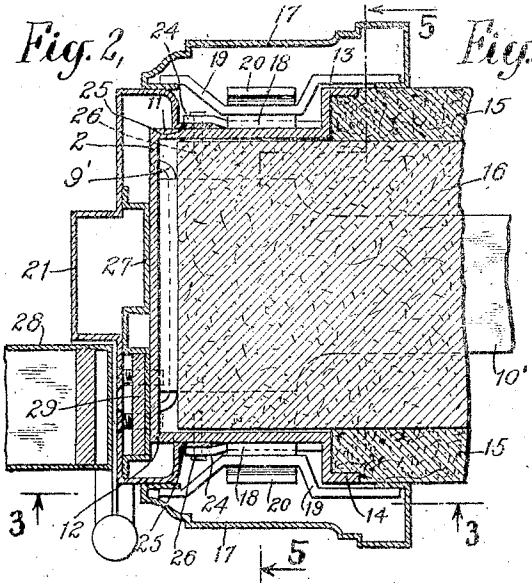


Fig. 3,

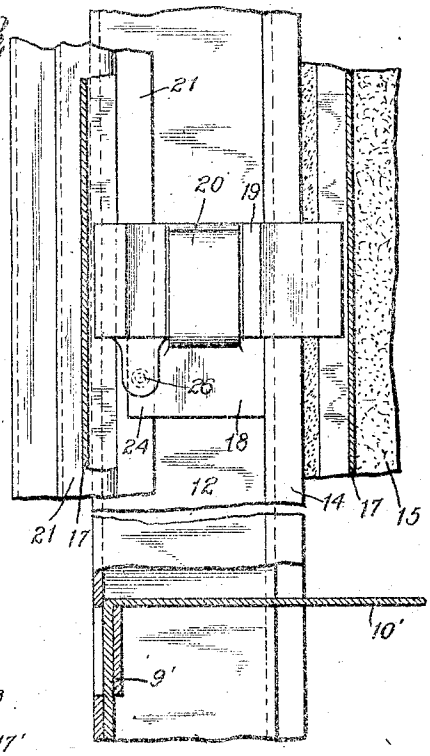


Fig. 4,

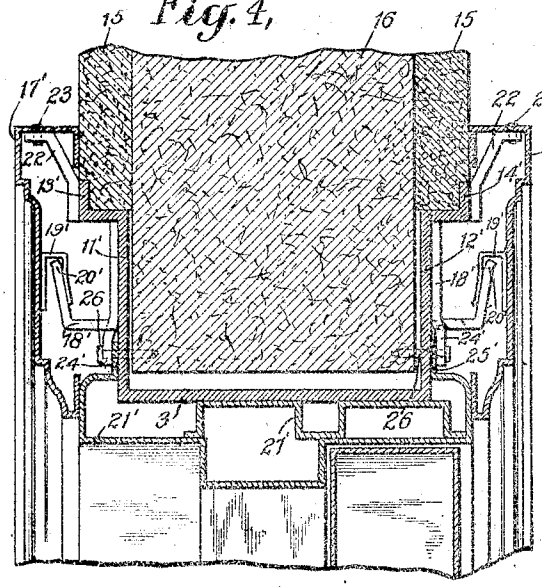
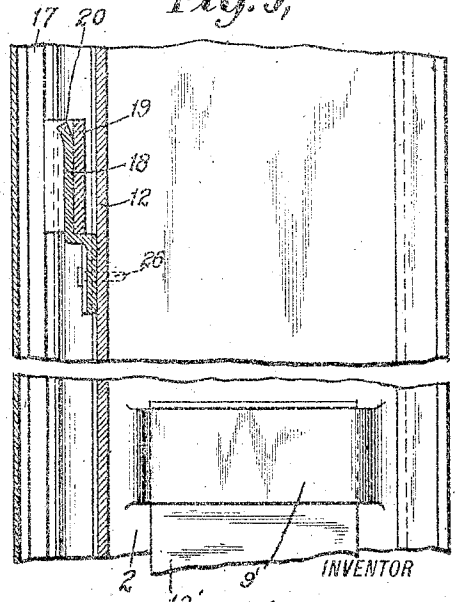


Fig. 5,



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CHARLES K. OLBERG, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HALE & KILBURN COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF DELAWARE.

DOOR-CASING.

1,187,544. Specification of Letters Patent. Patented June 20, 1916.

Application filed August 10, 1914. Serial No. 856,080.

To all whom it may concern:

Be it known that I, CHARLES K. OLBERG, a subject of the King of Norway, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Door-Casings, of which the following is a specification.

My invention relates to door-casings, and my object is to provide an improved combined construction of door-buck with jamb and trim, that is, a complete door-casing, which may be readily and inexpensively manufactured in desired sizes, and assembled at the point of installation expeditiously and cheaply to form a strong and efficient construction. By using standardized and uniform parts, and simplifying the operations of installing such constructions, I am enabled to lower the cost both of manufacturing and erection, and at the same time to provide a fireproof, all-metal door-casing of a good appearance and improved design.

Other objects of my invention reside in various of the details of construction and combinations of parts hereinafter more fully described in the following specification.

Briefly, my invention comprises, chiefly: a door-buck of improved design, which may be assembled on the ground and position at the desired place, and in connection with which no wood ground or wood facings need be used, as is commonly the case, to provide a surface to which the plaster may be finished, for a partition of brick and hollow tile or the like; a door trim, and a jamb, and means whereby the trim and the jamb are readily and securely fastened to the buck, these means chiefly consisting, in the preferred embodiment of my invention, in clips or hooks secured to the buck, and straps secured to the trim, which are slid into position over the hooks referred to, the jamb or the hooks or both being formed to coöperate to enable the jamb to be secured in place.

In order that my invention may be more fully understood, attention is hereby directed to the accompanying drawings, forming part of this specification and illustrating preferred embodiments of my invention.

In the drawings, Figure 1 represents a front elevation of a door-casing installed, with the partition surrounding the same, and a door secured to the same. Fig. 2 represents a horizontal section taken on line 2—2 of Fig. 1, Fig. 3 represents a section taken on line 3—3 of Fig. 2, Fig. 4 represents a vertical section taken on line 4—4 of Fig. 1, and Fig. 5 represents a section taken on line 5—5 of Fig. 2, Figs. 2 and 4 being on an enlarged scale with respect to Fig. 1.

Referring to the drawings, the door-buck is formed of vertical members 1 and 2 and cross-members 3 and 4, all preferably formed of channel-shaped steel sections secured together, and preferably adapted to be thus secured on the ground or floor before the erection of the buck, in the manner disclosed in the application of Olberg and Walker, Serial No. 851,256, filed July 16, 1914, entitled Door bucks. As there described, the vertical members are preferably provided with integral straps or pockets, by pressing out portions of the metal to leave strips such as 5 and 6, referring to Fig. 1, the flanges at the ends of the cross-members 3 and 4 being cut away and the bent ends, as 7 and 8, of the web portions of the cross-members, inserted through the pockets thus formed. In other pockets on the vertical members, such as 9 and 9′, shown respectively in Figs. 1 and 2, anchors such as 10 and 10′ are inserted, these anchors having right-angular portions extending between courses of the wall or masonry as the same is built, as is set forth in the said application.

In accordance with my invention, each vertical member, as 2, is formed with side flanges 11 and 12 having their ends bent outwardly into an L shape, as shown at 13 and 14 in Fig. 2. These angular extensions have several functions, one of which is to do away with the necessity of using wood grounds, as is the common practice, to provide surfaces to which the plaster may be finished, the plaster being finished, in my construction, in line with the outer plane surfaces of extensions 13 and 14. The L shaped extensions of the side flanges 11 and 12 of the buck member are formed, as shown, by bending each flange at right angles outwardly from the body thereof, and then rearwardly, parallel to the main body of the flange. This rearward end flange, having a plane surface, gives the line to which the plaster is finished, by resting a straight-edged board, for example, on this end flange. Also the inner surfaces of the main or forward portions of the buck side

flanges provide surfaces to which the brickwork, masonry or the like of the wall may be finished, and the outwardly extending legs of the L extensions provide abutments for the forward edge of the plaster, defining the thickness of the plaster 15, 15, by their lengths, and furnishing a surface at right angles to the wall against which the forward edges of the plaster are formed. In addition to the above, an important function of the L shaped extensions consists in providing a space, below the surface of the plaster, between the extension of each side flange and the face of the buck member, in which the securing devices for the trim may be located. By the provision of such a recess, the securing devices are concealed within the trim members, and the latter need not jut out so far from the wall as they would otherwise have to do, to accommodate the securing means therefor. The top cross-member 3 of the buck has similar L shaped ends 13′ and 14′ to its side flanges 11′ and 12′, as shown in Fig. 4, having similar functions to those of extensions 13 and 14 just described. By the arrangement described improved results are secured, a considerable saving in time and cost of erection is effected and wood is eliminated from the construction. The wall or partition of terra cotta, brick, or other desired material, is shown at 16.

For securing the door trim 17 in position I provide clips or hooks 18, which are secured, preferably by electric welding, to the flanges, as 11 and 12, of the vertical members of the buck, between the face of the buck member and the L shaped extensions, as 13 and 14. These clips are adapted to engage straps 19 which are secured, preferably by electric welding, to the trim 17. Clips 18 are provided with upper ends 20 which are slightly flared outwardly, as is shown in Fig. 5, so that when the trim 17 is to be secured in position the trim must be raised until all the straps 19 clear the tops 20 of hooks 18, after which the trim is forced downwardly, into position on both sides of the buck, with straps 19 resting within and retained by clips 18. It will be understood that there are as many clips 18 secured at spaced intervals to the flanges of the vertical members of the buck, and correspondingly spaced straps 19 secured to the trim, as may be deemed desirable, as is illustrated in Fig. 1. Because of the construction of the trim illustrated, and the arrangement of the clips and the straps, the fastening devices for the trim are concealed from view, the ends of straps 19 being secured to flanges on the ends of the trim which extend inwardly, parallel to the outer surface of the trim.

At the top of the doorway, the clips or hooks 18′ secured to the flanges 11′ and 12′ of the top member of the door-buck, preferably by welding, take a form such as is illustrated in Fig. 4, in which the upwardly extending and somewhat flared or beveled arms 20′ of the clips are engaged by the straps 19′, secured to the trim 17′, preferably by welding, when the trim has been lifted up and then forced down into position, with the straps engaging the clips. The straps 19′ preferably take the form substantially of an inverted U, as shown, each with one flat arm welded to the trim, and the other or free arm slightly flared or beveled to slide over the hook 20′ when the trim is positioned. For further securing means for the top trim 17′, upwardly extending members 22 may be provided, secured, as by welding, to the flanges 13′ and 14′ of the top cross member of the buck, and having horizontal flanges at their upper ends, on which the top horizontal surfaces of the trim 17′ rest when the trim is pressed downwardly to position, as described, it being understood that the trim has previously been assembled into a complete frame. Securing means, such as screws 23, may, if desired, be then passed through the horizontal engaging surfaces of trim 17′ and members 22.

The door-jamb 21 is secured to each vertical member of the buck, preferably by the means illustrated, in which the clips 18 are shown as having side extensions 24, extending substantially parallel to the flanges 11 and 12 of the vertical members of the buck, being bent outwardly from the surfaces of flanges 11 and 12, adjacent the welded joints between the clips and flanges 11 and 12, sufficiently to permit end flanges 25 of the jamb to be inserted between clip portions 24 and flanges 11 and 12 of the buck. When flanges 25 of the jamb have been positioned within retainer clip portions 24 of clips 18, nails 26 or other suitable retaining means may be passed through alined openings in flanges 24, 25, and 11 on the one side, and 24, 25 and 12 on the other side, and into the partition 16, to secure the jamb. At the top of the door, the same construction is used, hooks 18′ having downwardly extending portions 24′ between which and flanges 11′ and 12′ of the top member of the buck the flanges 25′ of the jamb member 21′ may be placed, and secured in place by suitable means, such as nails 26. In the case of the vertical jamb members, straps 19 may be so formed as to have surfaces in line with the heads of nails 26, when the trim members have been positioned, so that even if nails 26 work loose, they cannot come all the way out.

As will readily be seen from the above, in the assemblage of the door-casing, the buck is assembled, with clips 18 and 18′ secured to the same, erected, and anchored to the wall as the latter is built, plaster 15

being finished to the flange surfaces 13, 14 and 13′, 14′ of the buck. Jamb members 21 and 21′ are then placed in position with flanges 25, 25′ behind retainer clip portions 24, 24′, and nails 26 driven into position. Trim members 17, 17′ are then lifted into position to clear the tops of clips 18, 18′, and forced down over the ends 20, 20′ of the clips, the construction of the latter being such as to pull the trim tight up against the plaster and the jamb, by a wedging action. In the case of the top trim members, screws 23 may then be screwed through the top horizontal surfaces of the trim and members 22.

It will be noted that the inturned flanges of the trim members 17, to which straps 19 are secured, and the inturned flanges of trim members 17′, rest against the plaster of the wall and the outwardly extending side flanges of the jamb members in each instance, recesses being provided between the L shaped extensions of the buck side flanges and the flanges of the jamb members referred to, in which recesses the clips 18 and coacting parts of straps 19 are located when the parts are all adjusted in position.

Stiffening members 27, 27′, may be secured to the jamb members 21, 21′, inside the same, members 27, 27′ having portions adapted to lie against the web portions of the buck members, and flanges parallel thereto adapted to be welded to parallel portions of the jamb members, in the case of a metallic construction. In line with the hinges of the door 28, member 27, together with the jamb member 21, may be given a box form, and plates 29 placed therein at the hinges, lying against member 27, and some of the screws of the hinges passed through the same and member 27, and the web of the adjacent buck member.

It is not essential that the various portions of my improved construction described above as metallic be formed of metal, since the invention may be carried out when some of the members are of wood or other material. Door-openings, for example, are sometimes trimmed in wood before the order is given the manufacturer for steel jambs, and if wood bucks are used, the clips 18, 18′ may be secured to the wooden buck members by screws or otherwise, and straps 19, 19′, similarly secured to the trim, with the same functions as described. It may also be noted that the outwardly flanged ends 13, 14, 13′, 14′, on the flanges of the buck members, which, as stated, furnish surfaces with which the plaster is finished to lie flush, are preferably integral with the buck members, the unitary structure making for economy of production, but may be separate members, secured to the flanges of the buck members. It should also be understood that my invention is not strictly limited to the exact details of construction illustrated and described, but is as broad as is indicated by the appended claims.

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

1. In a door casing, a buck-member having a face portion and side flanges extending rearwardly at right angles to said face portion for a distance, then bent at right angles parallel to said face portion for a distance and then rearwardly with plane exterior surfaces at right angles to said face portion, to the rear ends of said flanges, said first-mentioned rearwardly-extending portions having plane interior surfaces to which the masonry within the buck is finished, said last-mentioned rearwardly-extending end portions furnishing exterior plane surfaces to which the plaster on the masonry is finished, and said portions parallel to the face providing abutments for the forward edges of the plaster, and being of lengths, including the thickness of said rearwardly-extending end portions, equal to the desired thickness of plaster on the masonry, substantially as set forth.

2. In a door-casing, the combination of a buck member having a face portion and rearwardly-extending side flanges, the rear portions of said flanges having L shaped ends extending outwardly therefrom, the end flanges of said L shaped portions furnishing plane surfaces to which the plaster of the adjacent wall may be finished, securing devices attached to said side flanges between the face portion of the buck member and the L shaped portions, and trim members secured in position by said securing devices, substantially as set forth.

3. In a door-casing, the combination of a buck member having a face portion and rearwardly-extending side flanges, the rear portions of said flanges having outwardly extending ends to define the thickness and the forward edges of the plaster on the wall within the buck, trim members, and means for securing the trim members to the side flanges of the buck member between the face portion of the buck member and the outwardly-extending ends of the side flanges thereof, substantially as set forth.

4. In a door-casing, the combination of a buck member having a face portion and rearwardly-extending side flanges, the rear portions of said flanges having outwardly extending ends to define the thickness and the forward edges of the plaster on the wall within the buck, trim members having flanges parallel to the side of the wall, adapted to lie against the surface of the plaster, clips secured to the side flanges of the buck member between the face portion thereof and the outwardly-extending ends of the side flanges,

and straps secured to the trim members, adapted to slidably engage said clips, substantially as set forth.

5. In a door-casing, the combination of a buck member, having a side flange, a jamb member secured against the front of the buck member, and having a side flange positioned against the side flange of the buck member, a trim member having inner flanges arranged to lie against the side flanges of the jamb member and the wall respectively, horizontal straps secured to said flanges, upwardly extending clips secured to said buck member side flange, having outwardly-flared upper ends, said straps being positioned to slidably engage over said clips with a wedging action when said trim member is slid into engaging position, to hold said trim member tightly in position, substantially as set forth.

6. In a door-casing, the combination of a buck member, having a side flange, upwardly-extending clips secured to said flange, having outwardly-flared upper ends, a trim member having inner flanges one of which is arranged to lie against the wall, horizontal straps secured to said inner flanges, said straps having vertical edge portions adapted to slidably engage within the flared upper ends of said clips, when said trim member is positioned, to retain the latter wedged in position, substantially as set forth.

7. In a door-casing, the combination of a buck member, having a side flange so formed as to provide a recessed portion, a trim member, and coacting concealed fasteners secured respectively to said buck member side flange within the recessed portion thereof and said trim member, one of said fasteners having a tapered edge portion and the other a substantially vertical surface adapted to slidably engage each other and hold said trim member wedged in position alongside said buck member, substantially as set forth.

8. In a door-casing, the combination of a buck member having rearwardly extending side flanges the forward portions of which define the outer planes of the adjacent wall and the rear portions of which define the outer planes of the plaster thereon, trim members, the rear portions of which are adapted to lie against the plaster, and concealed fastening devices for the trim members within the spaces provided adjacent the forward portions of said buck member side flanges, substantially as set forth.

9. In a door-casing, the combination of a buck member having a rearwardly-extending side flange recessed with respect to the outer surface of the adjacent finished wall, a trim member the inner portion of which is bent to lie in the plane of the outer surface of the said wall, and concealed fastening devices for said trim member positioned within the recessed portion of said buck member side flanges comprising clips secured to said side flanges and straps secured to said trim member adapted to slidably engage said clips, substantially as set forth.

10. In a door-casing, a buck member having a side flange and a clip member secured thereto, having a portion extending substantially parallel to said side flange, toward the front of said buck member, adapted to engage a jamb member, and a hook portion extending at an angle to said first-named portion, adapted to engage a trim member, substantially as set forth.

This specification signed and witnessed this 7th day of August, 1914.

CHARLES K. OLBERG.

Witnesses:
JOHN B. KILBURN,
WM. J. EARNSHAW.