March 22, 1927.

J. J. FITZ GERALD

1,621,877

VENEER WALL

Filed Feb. 6, 1926

Fig. 1

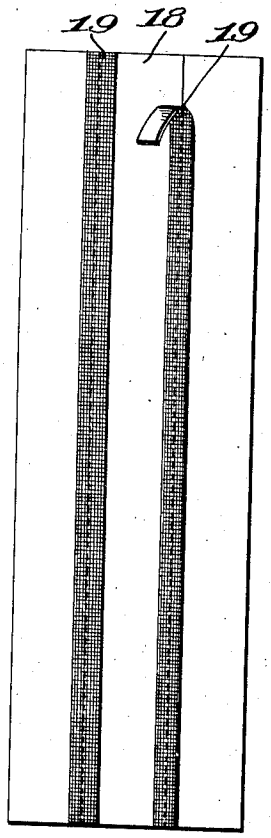



Fig. 2

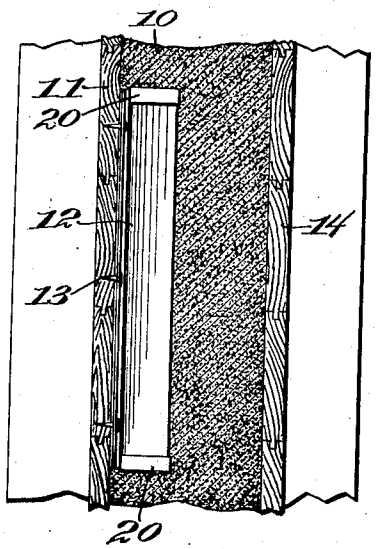



Fig. 3

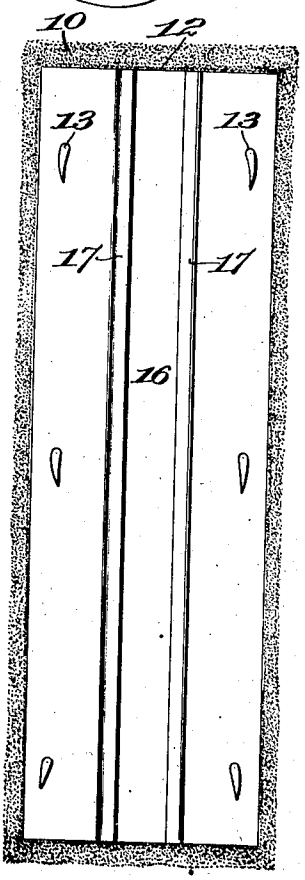



Fig. 4

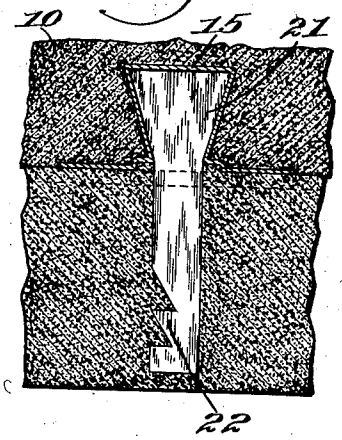



Fig. 5

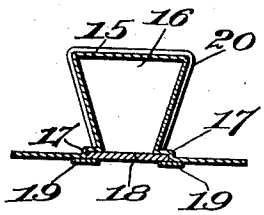
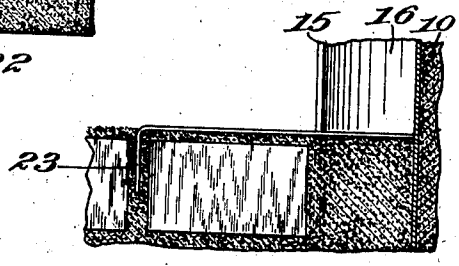



Fig. 6




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Patented Mar. 22, 1927. 1,621,877

# UNITED STATES PATENT OFFICE.

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## VENEER WALL.

Application filed February 6, 1926. Serial No. 86,528.

The present invention relates to an improvement in veneer walls and undercut slot shells for use in making the same.

Heretofore in the erection of concrete buildings, the outer wall is often a veneer wall, that is to say, it has a concrete or concrete and steel body and a veneer attached to the body. It has been the practice to insert copper tie wires at intervals in the body wall, with free ends extending outward. These tie wires are laid in the mortar of the veneer brick, or between the blocks of veneer concrete or artificial stone castings, in order to hold the veneer wall on and supported by the body wall. An objection to this construction arises from the fact that in applying the veneer wall, the tie wires are more or less neglected, as a consequence of which they are insecurely attached to the supporting or body wall, with the result that in the course of time the veneer wall may loosen and fall or be shaken off by earthquake tremors.

The object of the present invention is to produce an improved veneer wall having securing means for uniting the veneer and the body wall securely so that the veneer shall be well and permanently attached to the supporting wall. To this end the invention consists in the veneer wall and undercut slot shells for use in making the same hereinafter described and particularly pointed out in the claims.

In the accompanying drawings illustrating the preferred form of the invention, Fig. 1 is a face view of an undercut slot forming shell; Fig. 2 is a vertical section of the body or supporting wall in the wooden molds in which it is cast; Fig. 3 is a face view of the undercut slot shell with the cover removed in position in the body or supporting wall; Fig. 4 is a horizontal section showing the undercut slot shell in position in a supporting wall, a tie and veneer secured to the supporting or body wall by the tie; Fig. 5 is a horizontal section of the undercut slot shell; and Fig. 6 is a vertical section of the veneer wall in process of construction, showing a modified form of tie.

The illustrated embodiment of the invention is described as follows: The supporting or body wall 10 is cast between the usual wooden forms, of which the outer form 11 is first erected. Then an undercut slot shell 12 is tacked fast to the face of the outside mold 11 by nails 13. Then the inside wooden mold 14 is erected, and the concrete is poured in, the undercut slot shell 12 being embedded in the outer face of the supporting or body wall. Upon the removal of the wooden forms the outer face of the supporting wall is exposed, and the undercut slot shells are exposed to view and access.

The undercut slot shell comprises a piece of sheet metal of convenient length formed as shown in section in Fig. 5, with its body 15 forming an undercut slot 16. The corners of the shell are rabbeted at 17, and a filler strip 18 is laid in with its edges resting in the rabbets 17, and two strips 19 of adhesive material such as glue-covered cloth or friction cloth, are longitudinally applied to hold the filler strip 18 in place. The ends of the undercut recess inside of the undercut slot shell are closed by caps 20, made of sheet metal stampings which fit over the ends of the shell and close the end openings of the slot 16. The adhesive strips 19 may be extended beyond the ends of the shell and across the caps 20 and back again on the rear side of the shell to hold them temporarily in place until they are firmly embedded in and supported by the concrete. The caps may be soldered or welded in place, if desired. The filler strip 18 and caps 20 prevent the concrete from entering the inside of the shell when the concrete is poured.

After the supporting or body wall is cast with the undercut slot shells in place and the wooden forms are removed, the strips of cloth 19 are removed thereby pressing the filler strips 18 and opening the slots, whereupon the application of the veneer to the supporting wall progresses upwardly from the bottom of the structure. From time to time ties 21 having anchors, corresponding in shape to the undercut slots, are inserted edgewise in the slot and then turned at right angles to the position shown in Figs. 4 and 6. These ties are provided on their upper ends with hooks 22 in the form shown in Fig. 4, or 23 in the form shown in Fig. 6. After a piece of veneer is laid in the position which it is to occupy with respect to the supporting or body wall, the undercut slot behind the veneer is filled with mortar to the level of the top of the piece of veneer in place, and then a tie is inserted and laid on top of the mortar with its anchor in the slot and with its hook extending outward on top of the veneer piece. More mortar is laid in place on top of the veneer piece, and the slot

above the tie is filled with mortar. It will thus be seen that the ties securely unite the veneer to the supporting or body wall.

While the invention has been illustrated in connection with a construction of vertical wall, it is to be understood that it is adapted for use in other positions. Thus, it may be employed in securing a ceiling veneer to the under side of a concrete floor. Consequently the description is to be read and understood with this variation of position in mind.

It is within the contemplation of the invention that the undercut slot shell might be made in such form as to be removable from the supporting or body wall after the casting of the concrete of which it is formed, the undercut slot remaining in the attaching face of the supporting or body wall being adapted to receive the anchors of the ties.

The undercut slots of the supporting or body wall may be made of any convenient length and arranged at any desired position in the supporting or body wall, it being understood that they are to be arranged in such positions as conveniently to receive the tie anchors by which the veneer is to be attached to the supporting or body wall.

It is also to be observed that the present construction is adapted for use in buildings made of cement blocks which will be provided with undercut slots for the reception of the tie anchors, for brick veneer building construction, for securing metal lathing on ceilings, for supporting metal ducts from walls, for tile work, stone work, for attaching leaders, smoke pipes and cornices to buildings, for use in concrete railroad ties, and in general in any place in floors, walls, ceilings, roofs, tunnels or the like where it is desired to support one member from a supporting wall, and this specification is to be read and understood in the light of this statement, and in the claims the word "veneer" is to be taken and understood as defining any object or thing adapted to be secured by means of a tie to an undercut slot in a supporting or body wall or thing.

Having thus described the invention, what is claimed is:

1. An undercut slot shell for use in making undercut slots in building construction comprising a body formed with an undercut slot, a filler strip for closing the slot opening removably attached to the body, and end caps for the slot.

2. An undercut slot shell for use in making undercut slots in building construction comprising a body formed with an undercut slot, a filler strip for closing the slot, and adhesive strips for removably attaching the filler strip to the body.

In testimony whereof I have signed my name to this specification.

JOHN J. FITZ GERALD.