Dec. 19, 1922. 1,439,650.

A. O. THOMAS.

WALL CONSTRUCTION AND TIE THEREFOR.

FILED JAN. 20, 1921.

Fig. 1

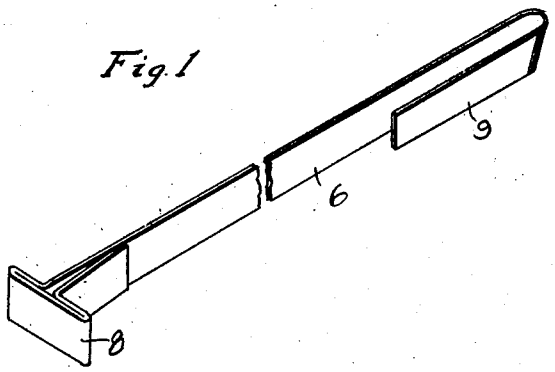


Fig. 4



Fig. 2

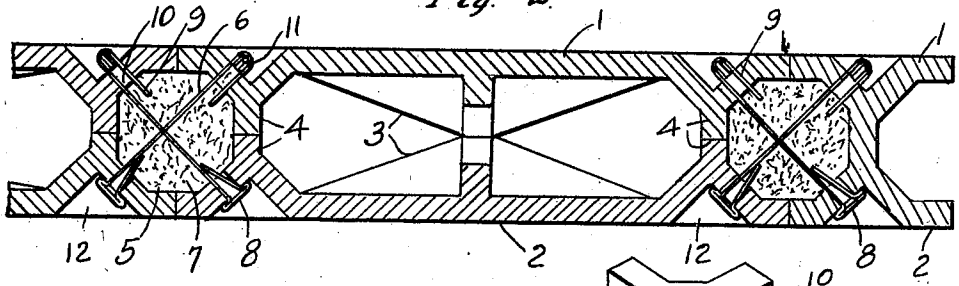
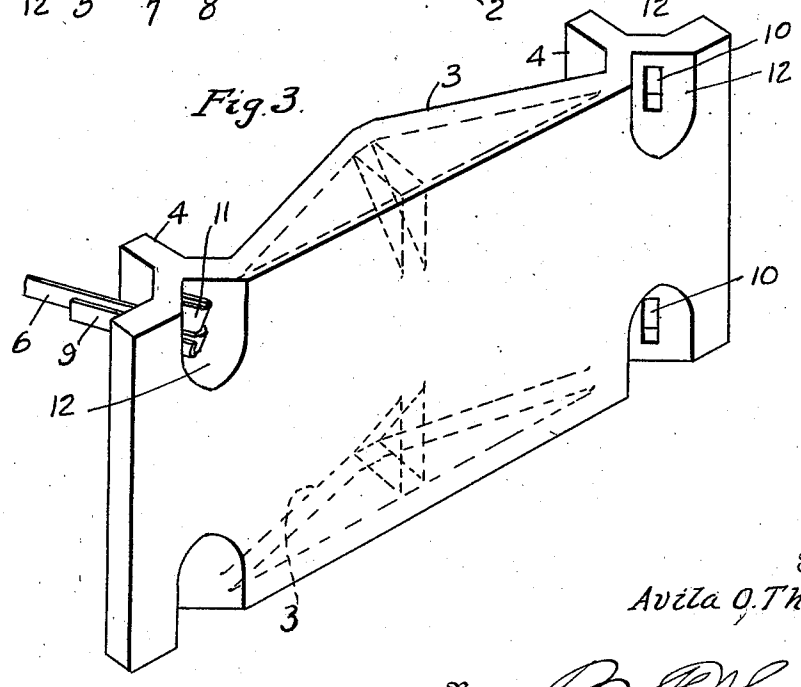


Fig. 3



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UNITED STATES PATENT OFFICE.

AVILA O. THOMAS, OF DETROIT, MICHIGAN.

WALL CONSTRUCTION AND TIE THEREFOR.

Application filed January 20, 1921. Serial No. 438,569.

To all whom it may concern:

Be it known that I, AVILA O. THOMAS, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Wall Construction and Tie Therefor, of which the following is a specification.

This invention relates to a wall construction and tie therefor, and relates more particularly to a sectional tile wall and tie members for connecting the sections of tile. Applicant's co-pending application, Serial Number 438,570, filed January 20, 1921, is directed to those features of the construction independent of the specific nature of the tie.

It is the object of the invention to provide a bond or tie member with tensioning wedge therefor, which parts may be inexpensively formed of strap metal or of sheet metal stampings, and which will permit of an interlocking engagement between the tie member and wedge as will secure the latter firmly in its tension-exerting position.

In attaining this object the invention contemplates forming a tie member of a strip of strap iron or the like folded at one end to produce a head preferably of a T-shape, the other end portion of said tie member being return-bent for engagement by a channel-shaped tensioning wedge, the return-bent end of the tie being so engaged within an aperture of the adjacent tile member as to withstand the tensioning stress, and the wedge having an elongated extremity at one side of the channel therein adapted to be bent into interlocking engagement with the tie member.

A preferred embodiment of the invention is hereinafter described and is illustrated in the accompanying drawing, wherein,

Fig. 1 is a perspective view of the improved tie member.

Fig. 2 is a horizontal sectional view of a tile wall showing tie members employed in accordance with the invention.

Fig. 3 is a perspective view of one of the tile members, showing the engagement therewith of a tie member and a tensioning wedge for said member.

Fig. 4 is a perspective view of said wedge.

In these views the reference characters 1 and 2 designate tile members arranged in complementary pairs spaced for the greater portion of their extent so as to form hollow tiles or blocks, said members having abutting vertical ribs 3 adjacent their ends, and horizontal ribs 4 adjacent their top and bottom edges. At the joints between the ends of the two-part tiles 1, there are formed columnar openings 5, and tie members 6 are extended diagonally of said opening between the outer tile member 1 of each block or tile and the inner tile member 2 of the adjacent block or tile. The openings 5 are filled with concrete (or the like) 7 and the tie members 6 function primarily to resist the outward pressure exerted by the filling 7 while in plastic form. Said tie members, which are preferably formed of strap metal, are folded at one extremity to form a T-shaped head 8, and are return-bent at their other ends as indicated at 9. The members 1 and 2 are formed with diagonally registered apertures 10 for engagement by said tie members, and the return-bent end portion 9 extends into the aperture 10 of the adjacent tile member so as to better withstand tension stresses. Within the return-bend 9 a channel-shaped wedge member 11 is engaged, said member being preferably formed of sheet-metal. The reduced end portion of said wedge has a somewhat greater extent at one side of the channel than at the other so that it may be bent, as indicated by dash lines in Fig. 4 to engage the tie member and maintain the wedge in its tension-exerting position. It is preferred to form the exterior faces of the tile members 1 and 2 with V-shaped pockets 12 having walls paralleling the diagonals of the openings 5, in which walls the apertures 10 open. Said pockets receive the headed and wedge-engaged ends of the tie members and prevent the latter projecting undesirably beyond the inner or other faces of the wall. By giving said recesses the described shape a maximum bearing surface is provided for the heads 8 of the ties and the wedges 11.

Both the tie members and wedge members, which have been above described, are adapted to be manufactured at low cost. Furthermore, insertion of the tie 6 in the openings 10 may be very quickly accomplished, as may also the engagement of the wedges 11 with said tie members and the interlocking of the wedges with the ties to hold the former in place.

What I claim is:

1. In a device of the character described, the combination with a tie member, of a sheet-metal wedge tensioning said member

and having a reduced readily bendable portion engageable with an edge of the tie member to maintain the tension-exerting position of said wedge.

2. In a device of the character described, the combination with a tie member, of a sheet-metal wedge tensioning said member, said wedge forming a channel of varying depth, one side of said channel being extended below the wedge to form a locking element bendable to engage the tie member and retain the wedge in its position of use.

3. In a device of the character described, the combination with a tie member, of a sheet-metal wedge tensioning said member, said wedge forming a channel of varying depth, and having a readily bendable reduced extension from its smaller end engageable by bending with the tie member to hold the wedge in its position of use.

In testimony whereof I sign this specification.

AVILA O. THOMAS.