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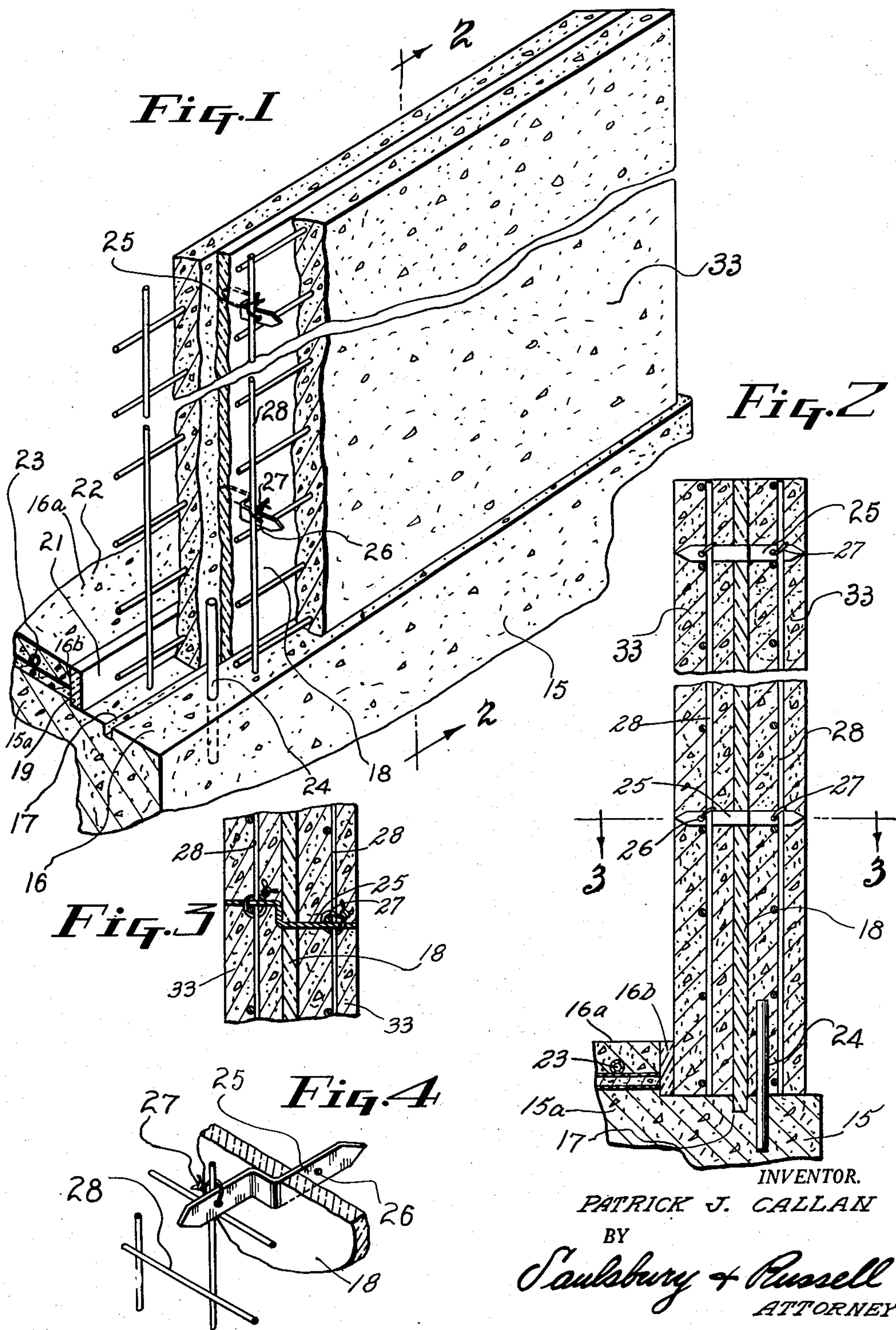
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BUILDING WALL CONSTRUCTION

Filed June 12, 1948

2 Sheets-Sheet 1



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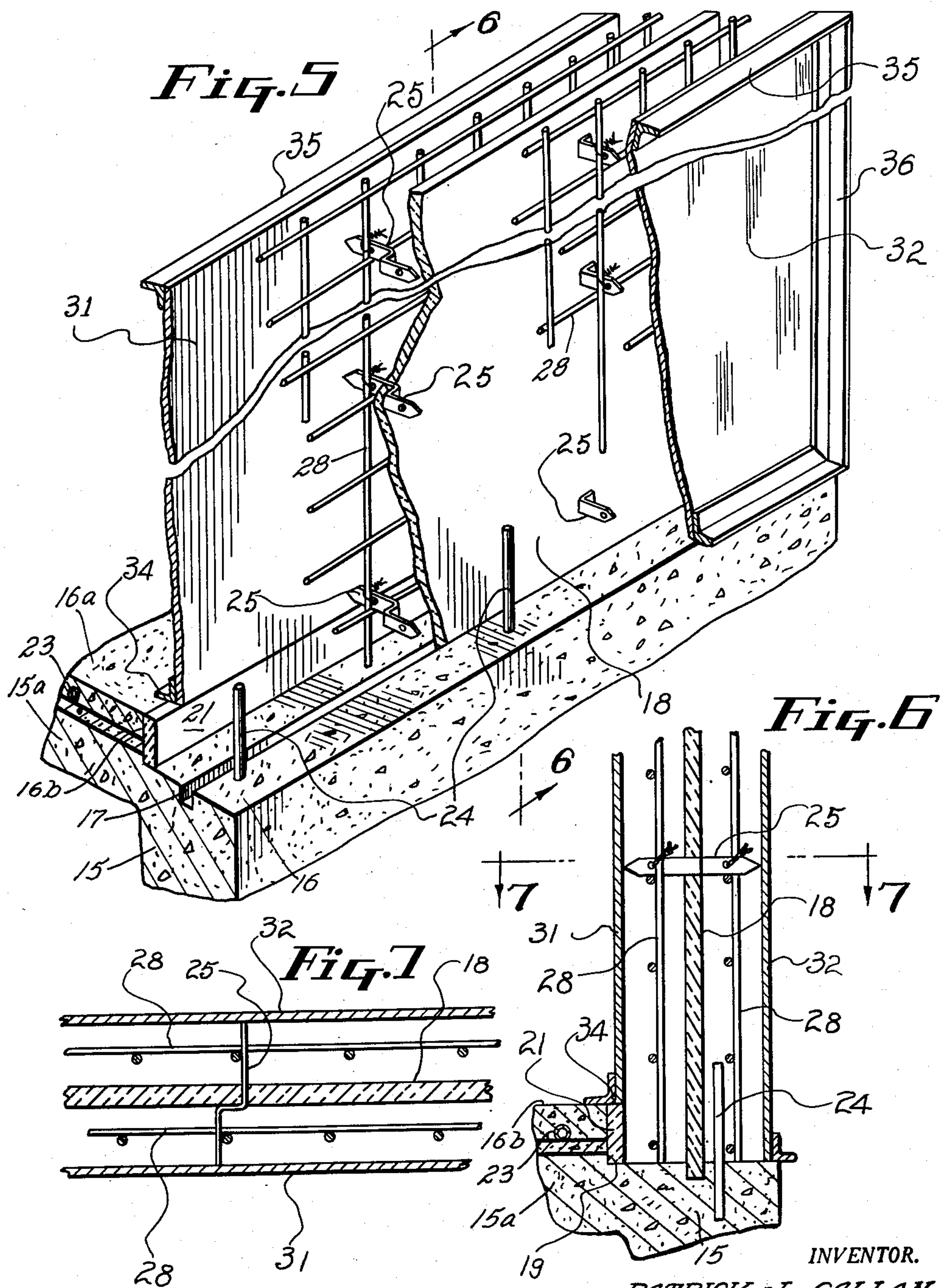
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INVENTOR.
PATRICK J. CALLAN
BY

Saulsbury + Russell
ATTORNEYS

UNITED STATES PATENT OFFICE

2,653,469

BUILDING WALL CONSTRUCTION

Patrick J. Callan, Manhasset, N. Y.

Application June 12, 1948, Serial No. 32,696

1 Claim. (Cl. 72—50)

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This invention relates to a building wall construction and more particularly to a type of building wall adapted to be constructed with wall forms such as disclosed in my co-pending application, Serial No. 736,685, filed March 24, 1947, now Patent No. 2,544,297, on Collapsible Forms for Concrete Wall Construction.

It is an object of the present invention to provide a wall construction with a central insulating board which is surrounded by concrete such as may be poured into wall forms and wherein the same will be centrally spaced between reinforcements for the concrete and wherein the boards will be held by the reinforcements at the time of pouring the concrete by spacing elements having only point engagement with the wall forms and so as not to penetrate the surfaces of the concrete and wherein the insulating board will be retained on the foundation wall within a recess specially formed therealong and wherein an insulating block may extend between the inner face of the wall and the floor to accommodate the expansion of the floor and wherein the same insulating board may be coated with waterproofing material so that the wall will be waterproofed and provide a stoppage against inward flow of water from an exterior surface to the interior surface.

Other objects of the present invention are to provide a wall construction which is simple and easy to form, which will be reinforced as well as insulated, adequately tied to the foundation wall, inexpensive to form, has an embedded insulating board, reinforced, and of long life.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Fig. 1 is a fragmentary perspective view of a foundation wall and of a top wall insulated and waterproofed according to the present invention and having reinforcing on the opposite sides of the insulating board.

Fig. 2 is a sectional view, in elevation, taken on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a fragmentary and illustrative view showing the spacer elements for retaining the insulating board and the reinforcing wires within the wall forms.

Fig. 5 is a fragmentary and perspective view showing the wall forms in place and the insulating board and reinforcing wires within the wall

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forms prior to the disposal of the concrete therebetween.

Fig. 6 is a sectional view, in elevation, taken through the forms and on line 6—6 of Fig. 5.

Fig. 7 is a transverse fragmentary sectional view taken on line 7—7 of Fig. 6.

Referring now to the figures, 15 represents a bottom foundation wall having a top surface 16 with a longitudinally extending groove 17 therein for receiving and retaining the bottom edge of an insulating board 18 to be embedded in the wall to be made on top of the surface 16. A concrete floor supporting structure 15a extends laterally from the top wall surface 15 and has the surface 16a slightly raised to form a shoulder 16b. At the inner edge of the surface 16 is a shoulder 19 against which may abut a piece of insulating material 21 to take up the expansion of a floor 22 which may be of the type having heating coils 23 therein.

Projecting upwardly from the top surface of the foundation wall 15 are retaining pins or pegs 24 adapted to be surrounded by concrete and to prevent the outward bulging of the wall which is to be formed.

With the insulating board 18 in place, spacers 25 are installed in the board by puncturing the same so that the spacers extend equally from the opposite sides of the board. These spacers each have holes at the opposite side of the board and spaced therefrom as indicated at 26 through which a wire 27 can be extended for retaining reinforcing wires 28 on the opposite sides of the insulating piece. These wires and the insulating board will be held by the spacers 25 upon their engagement with inner and outer wall forms 31 and 32. Accordingly, the reinforcing wire and the insulating board will be retained against lateral shifting movement within the forms 31 and 32 while concrete is poured over the top edge of the forms to provide concrete 33 in which will be embedded the insulating member and the reinforcing parts 28. Likewise, the concrete will form about the retaining pin 24. The bottom edge of the inner wall form 31 has an angle piece 34 and overlies the top edge of insulating member 21. The forms 31 and 32 may have other angle pieces along their edges as indicated at 35 and 36 whereby to stiffen the forms.

The insulating piece may be coated with waterproofing material so as to serve to waterproof the wall. An asphalt coating may be preferably applied to both faces of the insulating material but it will be sufficient if the exterior face only has the coating. The inward flow of heat or

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cold will be prevented by the insulating piece. Likewise the heat loss in the wall from the interior to the exterior is cut down by the insulating material.

The present wall construction is formed from a foundation wall having a groove therein adapted to receive the insulating piece and to reinforce it against shifting movement along its bottom edge, the insulating board serving as a brace for reinforcing wires disposed on opposite sides of the same and for retaining the spacer elements adapted as a spacer extending between the walls of the form to retain the insulating board and reinforcing wires as a unit against lateral shifting movement within the form upon the concrete being poured thereafter pouring the concrete from the top of the forms into the mold and onto the grooved bottom wall or foundation.

There is provided an insulated wall in which the insulation material is in the form of a vertically extending board connected in a groove in the bottom face on a foundation wall and with cement in equal thickness on the opposite sides of the insulating board and this cement having reinforcing wires equally spaced from the opposite sides of the board and likewise embedded in the concrete.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention, as defined by the appended claim.

I claim:

A poured building wall and floor construction comprising an integral concrete wall foundation and floor supporting base, the top surface of the foundation having a central groove running longitudinally therealong, a vertically extending flat-surfaced insulating board having its lower edge seated in the groove and confined against lateral displacement, upwardly extending re-

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taining pins seated in said foundation, concrete reinforced by metallic rods, extending vertically on opposite sides of the insulating board, said concrete being of equal thickness on both sides of said board and supported upon the foundation surface with the upper portions of the pins embedded in said concrete, offset spacers extending through said insulating board and tied to said metallic rods, said foundation surface off-set downwardly from the top surface of the supporting base with a vertically extending shoulder formation therebetween, a poured floor lying over the floor supporting base and extending laterally from said shoulder formation, the concrete providing an inner wall surface spaced from the shoulder formation and from the edge of the floor, and an insulating piece coated with waterproof material extending along the shoulder formation and floor serving as a cushioning device to take up the expansion of the floor.

PATRICK J. CALLAN.

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