March 11, 1924. 1,486,499

J. TAYLOR

MOLD FOR CONSTRUCTING CONCRETE BUILDING WALLS

Filed May 12, 1922

Fig. 1.

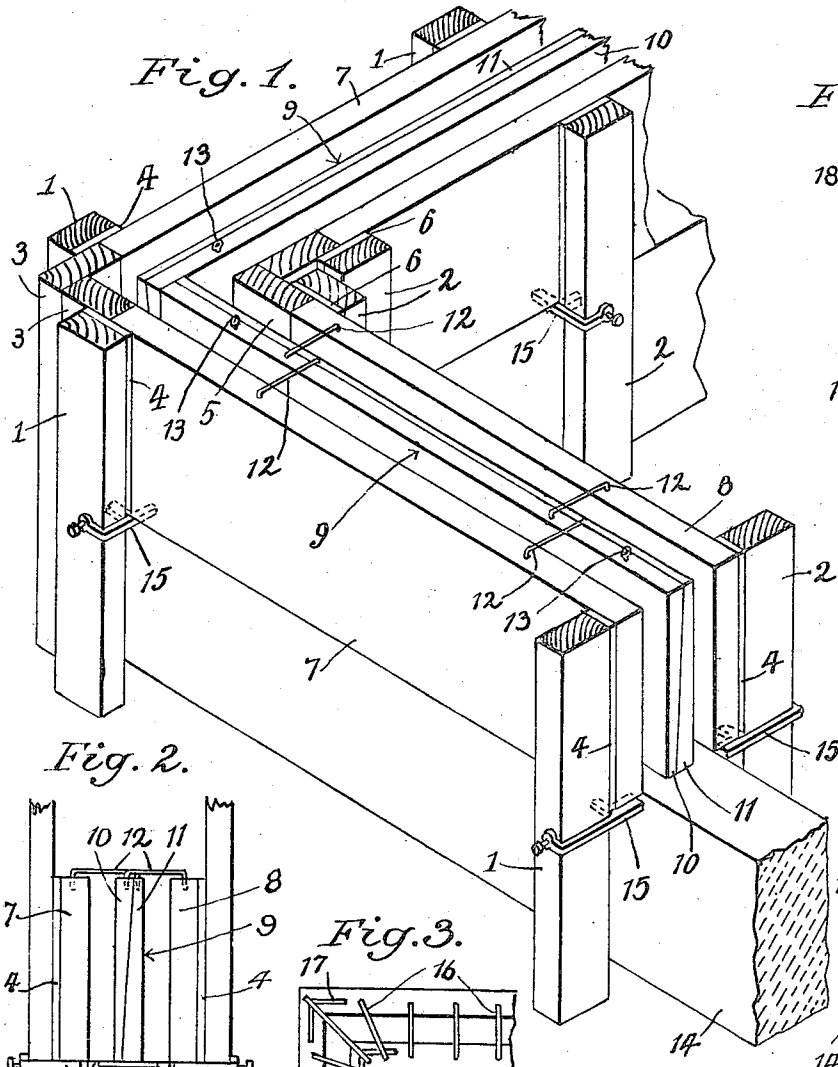


Fig. 2.

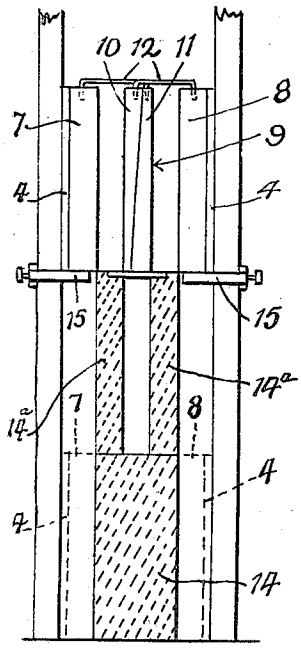


Fig. 3.

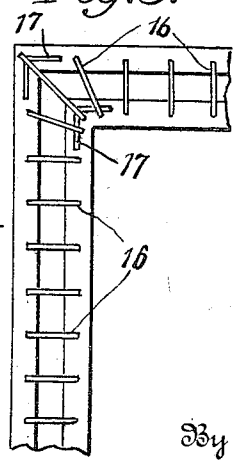
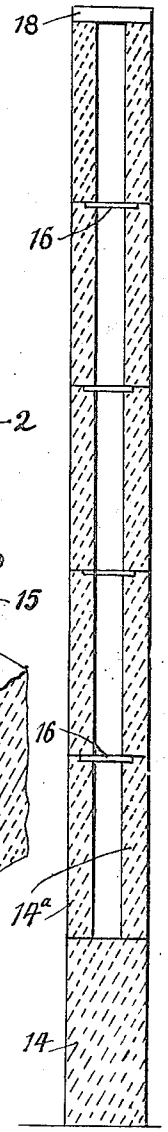


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN TAYLOR, OF FOREST GROVE, OREGON.

MOLD FOR CONSTRUCTING CONCRETE BUILDING WALLS.

Application filed May 12, 1922. Serial No. 560,494.

To all whom it may concern:

Be it known that I, JOHN TAYLOR, a citizen of the United States, and resident of Forest Grove, in the county of Washington and State of Oregon, have invented certain new and useful Improvements in Molds for Constructing Concrete Building Walls, of which the following is a specification.

This invention relates to concrete building construction, having reference particularly to an improvement in molds for constructing hollow reinforced building walls.

The invention has for its object the provision of means for molding and constructing a poured concrete building having double walls and a continuous space therebetween which extends around all sides of the building.

Further objects of the invention being to provide means for quickly and economically constructing a building and its foundation by employing few and simple elements of low cost and great durability.

In carrying out my invention I employ an outside series of flat rectilinear mold boards or plates adapted to extend around all of the walls of the building under construction, on a horizontal plane, an inside series of similar plates, and an intermediate series of plates comprising, respectively, a pair of wedge-sections, and means for laterally spacing said plates, and an upright framework for supporting them, all as hereinafter fully described and specifically set forth in the appended claims.

In the accompanying drawings forming part of this specification, Figure 1. is a perspective view illustrating one corner of a building under construction by my improved mold assemblage;

Figure 2. is a cross sectional elevation;

Figure 3. is a plan view; and

Figure 4. is a longitudinal sectional elevational view showing a completed wall.

In the drawings, 1. indicates wooden upright posts or standards which are erected around the outside of the space upon which the building is to be erected and they are laterally spaced from the line of the outside surface of the building wall, a similar series of uprights 2. being erected within the space to be occupied by the building and spaced laterally away from the line of the inner surface of the building walls. At each corner are erected uprights 3. which extend at right angles from each other and are laterally spaced from the adjacent uprights by means of plates 4. Similar right angularly extended uprights 5. are placed adjacent to the inner corner uprights 2. and spaced therefrom by means of plates 6. These uprights are of a length to equal the height of the building to be erected and any desirable or adaptable number of such uprights may be employed, depending upon the size and ground plan shape of the building to be erected.

I further employ a plurality of mold boards or plates 7, adapted to be placed around the outside walls of the building, and a plurality of similar mold boards 8. for extension within the building, said boards are laterally spaced apart a distance equal to the width of the building walls, and they are of a width adapted to register with the edges of the corner uprights 3 and 5. respectively.

I further employ a plurality of intermediate forms adapted for molding the space between the inner and outer walls of the building. These forms respectively comprise a wedge section 10. and a wedge section 11, and they are held laterally spaced from the mold boards 7 and 8 by means of yokes 12, the section 10 being provided with eyes 13, whereby said sections, may be lifted away from the sections 11, after the yokes 12 are removed. All of the mold boards are of equal thickness and height and of any adaptable length, whereby they may be extended entirely around a building with their respective ends in register for the purpose of providing a box-like mold for forming the walls of the building.

In the process of erecting a building I first set my upright framework consisting of the outer and inner standards 1 and 2, and then assemble the mold boards 7 and 8, on the ground surface, as shown by dotted lines in Figure 2 of the drawings. Having set the mold boards and properly spaced them away from the uprights 1 and 2, by means of the spacing plates 4, the space between the inner and outer boards is filled with wet plastic concrete of any adaptable composition, whereby the foundation 14 is formed. After this foundation is set and partly dried the spacing plates 4 are removed, whereby sufficient lateral movement is allowed the mold boards to disconnect

and remove them from the foundation wall without liability of marring the surface thereof.

Having finished the foundation, the inner and outer mold boards are placed in position shown in Figure 1 of the drawings and supported on the uprights by means of clamps 15. The inner mold plates 9 are then set and properly spaced apart by means of the yokes 12, whereupon the spaces between the molds are filled with concrete to form the wall sections 14ª. When these wall sections set sufficiently the yokes 12 and spacing plates 4 are removed, whereupon the mold members may be readily removed, the wedge shaped cross sectional shape of the intermediate mold members 9, admitting of readily lifting the members 10 away from the members 11 without liability of displacing or marring the wall sections thus formed. After the molds are removed the wall sections 14ª are connected at their top parts by means of reinforcing ties 16, which are pressed into the surface of the concrete, angle-iron reinforcing straps 17 being employed at the building corners, as illustrated in Figure 3 of the drawings. When the next upper wall section is to be formed the molds are placed in position shown in Figure 2 of the drawings, and the pouring operation is repeated, the intermediate mold members 9 being supported on the reinforcing ties 16, and the inner and outer mold members 8 and 7 being supported on the clamps 15 which have been moved up into alignment with the upper edges of the wall sections 14ª, as clearly shown in Figure 2 of the drawings. This operation is repeated until the wall is built to its full height, whereupon the top of the wall is closed by means of a suitable cap 18. The outside of the building walls may then be coated with a thin layer of any adaptable waterproofing material.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a mold of the character described an outside series of flat rectilinear mold plates adapted to extend around a building on a horizontal plane, an inside series of similar mold plates, a double series of mold plates of wedge-shape arranged in facial contact intermediate the outer and inner series of mold plates, pointed yokes uniting said plates in assembled relation, tie rods spanning said plates, uprights on opposite sides of said inner and outer plates and spaced apart therefrom means for removably supporting said inside and outside plates on said uprights, and separate vertical plates removably interposed between said horizontal plates and said uprights.

2. In a mold of the character described, an outside series of flat rectilinear mold plates adapted to extend around a building on a horizontal plane, an inside series of similar mold plates, and an intermediate series of mold plates comprising, respectively, a pair of wedge-sections, and yokes for laterally spacing all of said plates and maintaining them in spaced relation, and ties for supporting the intermediate mold plates, and an upright framework, and clamps for removably supporting the inside and outside mold plates on said framework, and spacing plates supported on said clamps and adapted for holding said plates in properly spaced relation.

Signed at Forest Grove, in the county of Washington and State of Oregon, this 28th day of March, A. D. 1922.

JOHN TAYLOR.