W. J. WHITEHEAD.

MOLD FOR CONCRETE WALL CONSTRUCTION.

APPLICATION FILED NOV. 28, 1910.

1,043,745. Patented Nov. 5, 1912.

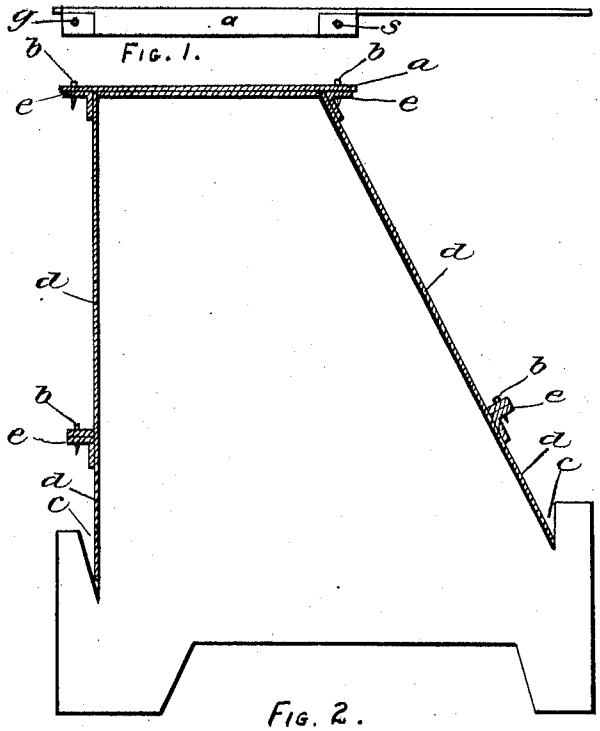

FIG. 1.

FIG. 2.

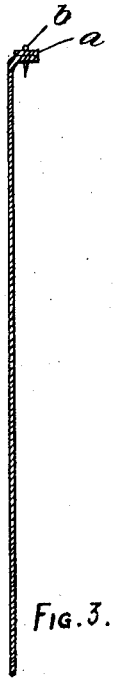

FIG. 3.

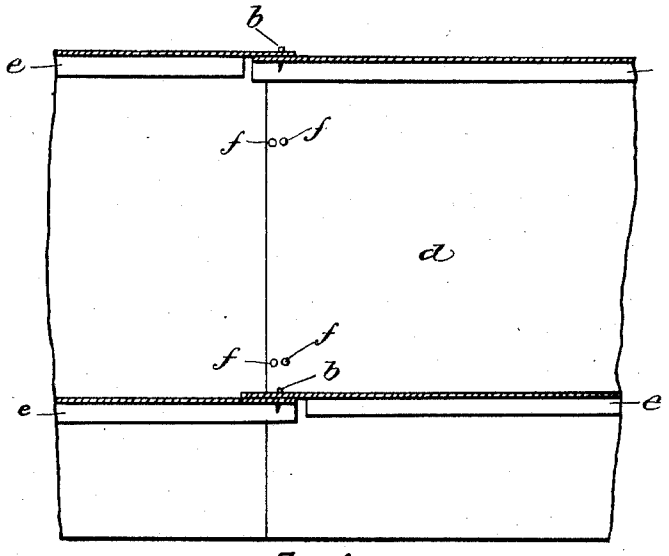

FIG. 4.

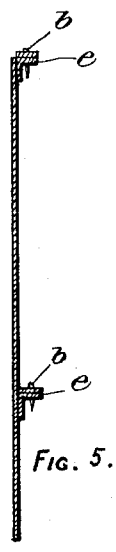

FIG. 5.

Witnesses:
A. Kinney.
F. F. Whitton.

Inventor:
William J. Whitehead.
By W. B. Worthington.
his Attorney.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM J. WHITEHEAD, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-THIRD TO W. B. WORTHINGTON, OF CLEVELAND, OHIO.

MOLD FOR CONCRETE WALL CONSTRUCTION.

1,043,745. Specification of Letters Patent. Patented Nov. 5, 1912.

Application filed November 28, 1910. Serial No. 594,607.

To all whom it may concern:

Be it known that I, WILLIAM J. WHITEHEAD, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Mold for Concrete Wall Construction, of which the following is a specification.

My invention relates to improvements in molds for constructing concrete structures, especially walls, and is intended to provide a standard interchangeable and self-containing mold for such structures.

By the use of my mold both time and expense can be saved over the methods now used. The templets being detachable, the mold is adapted for both straight and curved construction.

The device is intended to be used as a continuous form for the construction of concrete walls, steps, curbs, etc. The templets are made to conform in shape to the section of the wall to be constructed. The mold should be set up in sections by the use of the mold members in series, the templets being so spaced as best to afford spreading, stiffening and containing strength without regard to the abutting of sidewall members. When the mold is in place it is filled as an ordinary mold. The yoke, which retains the bottom of the sidewall members, is an extension of the templet outside of the mold proper to form a V-shaped opening at the bottom of the templet; and into this opening the side wall member may be wedged edgewise for retaining, thus permitting the removal of such sidewall member without jar to the concrete mass. The sidewall members may be detached at the top by removing the retaining pins, and can then be withdrawn without jar, thus permitting tooling of the concrete face before the final set of the cement, and releasing the form members for use in the forward part of the wall, or otherwise as desired. The templet is notched to save metal; to admit longitudinal reinforcement into the bottom of the wall; to give clearance to longitudinal drain tile in the wall; to give a better set to the templet; to increase the resistance to lateral strain; and to give a footing bond between adjoining sections of the wall at its base. The notching is not necessary, however. The use of the retaining yokes of the templets may elevate the sidewall members slightly above the footing, but this opening may be closed with suitable means to prevent the escape of concrete when the mold is being filled, if necessary; or the templet may be pressed into the footing prior to connecting to it the sidewall members.

I attain these objects by constructing my mold as illustrated in the accompanying drawing.

Figure 1 is a plan view of the templet viewed from above, showing the keeper bar and the extension to form the yokes outside of the wall proper. Fig. 2 is an elevation of the templet, showing the yokes, retaining pins and the sidewall members in place. Fig. 3 is a section of the templet, showing the keeper bar and retaining pin at the top. Fig. 4 is an elevation of the sidewall members, showing two such members abutting and the method of connecting them together. Fig. 5 is a section of the sidewall member connected to another such member but detached from the templet.

The upper edge of said templet is flanged for stiffening purposes and to this flange (*h*) is attached a keeper-bar (*a*), which is adapted to project over and engage the upper stiffening bars (*e e*) of the outer form plates (*d d*) by means of retainers (*b b*) through the apertures (*g g*). The base of said templet is provided with containing yokes (*c c*), preferably wedge-shaped, which hold the lower edges of the outer form plates (*d d*) rigid. In Fig. 4 are shown abutting outer form plates (*d d*) as they rest on the containing yokes of the templet. Stiffening bars are attached to said outer form plates and are adapted to extend over and engage alternately and interlockingly the similar stiffening bars of the abutting form by means of retainers (*b b*) through apertures provided as desired in said stiffening bars (*e e*). Fig. 5 is a cross-section of said outer form plate. Apertures (*f f*) through said outer form plates may be provided as desired to admit wire or other stiffening brace for the mold.

In setting up my mold the templets are steadied in proper line, spaced preferably the length of the outer form plate, or closer; the outer form plates are then slid into the containing yokes at an angle and then

pressed firmly against the edges of the templets and caught by the retaining pins through the apertures provided in the keeper bar of the templets, or through those in the stiffening bars of the outer form plate when they are abutting.

In taking down the mold the operation above described is reversed, the templets being drawn out by means of a grip on said keeper-bars. The templets and outer form plates are made preferably of steel sheets, but other suitable material will do. The taking down operation requires no heavy hammering that will disturb the set of the cement, and may be done so promptly that surfacing of the wall structure may proceed immediately following the primary set of the cement.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is:—

1. A concrete mold consisting of a series of units, comprising side members, templet members separating said side members and having bottom yokes for retaining the bottoms of said side members, and means for detachably securing said templet members to the top of said side members and for detachably securing together abutting side members.

2. A concrete mold consisting of side members, templet members to act as spreaders and having yokes for retaining the bottoms of said side members, and means for detachably securing the tops of said side members to said templet members.

3. A concrete mold consisting of side members, having lugs attached and adapted to detachably engage projecting lugs of abutting side members with means for securing said lugs together, and templet members, having bottom yokes adapted to detachably engage the bottoms of said side members and having keeper bars adapted to extend and detachably engage said side members, with means for securing said keeper bars and said side members together, said templet members being adapted to act as spreaders.

4. A concrete mold consisting of a series of units, comprising outer side members, having stiffening bars attached and adapted to project over and detachably engage upper stiffening bars of abutting side members, with means for securing same, and templet members, adapted to act as spreaders, and having keeper bars attached and projecting to engage said side members through apertures in said stiffening bars, and having extension yokes adapted to detachably engage said outer side members at the lower edge of said side members.

5. A concrete mold consisting of side members, having stiffening bars attached and adapted to act as lugs and to engage detachably by means of pins through apertures in said stiffening bars the abutting side member, and templet members, adapted to act as spreaders, and having keeper bars at the upper edge of said templet members, said keeper bars being adapted to act as lugs and to project and detachably engage by means of pins through apertures in the upper stiffening bars of said side members, said templet members having wedge shaped yokes adapted to project and detachably engage the lower edge of said side members.

6. A concrete mold consisting of a series of units, comprising side members, having stiffening bars attached to the upper and lower edges, said stiffening bars being adapted to lap the abutting form and detachably engage similar stiffening bars of the abutting side members, and having apertures for admitting stiffening wires, and templet members, having keeper bars attached to the upper edge, said keeper bars being adapted to project and engage by means of pins through the said upper stiffening bars of said side members, and said templet members having bottom yokes adapted to project and detachably engage the lower edge of said side members.

WILLIAM J. WHITEHEAD.

Witnesses:
H. BJURSTROM,
FLORENCE BECKER.