

953,532.

2 SHEETS—SHEET 1.

A detailed technical drawing of a mechanical assembly, likely a conveyor system or a material handling device. The drawing includes the following components and labels:

- 1**: A large, hatched rectangular block at the bottom, possibly a motor or a base.
- 2**: Two vertical rectangular plates or guides positioned on either side of the central shaft.
- 3**: Multiple vertical shafts or rods that run through the assembly.
- 4**: A horizontal bar at the top with a series of small circles (possibly rivets or bolts) along its length.
- 5**: A horizontal bar in the middle with a series of small circles along its length.
- 6**: A horizontal bar at the top with a series of small circles along its length.
- 7**: A horizontal bar at the top with a series of small circles along its length.
- 8**: A horizontal bar at the top with a series of small circles along its length.
- 9**: A horizontal bar at the top with a series of small circles along its length.
- 10**: A horizontal bar at the top with a series of small circles along its length.
- 11**: A horizontal bar at the top with a series of small circles along its length.
- 12**: A horizontal bar at the top with a series of small circles along its length.
- 28**: Two small rectangular components, possibly sensors or actuators, mounted on the vertical shafts.
- 30**: Two small rectangular components, possibly sensors or actuators, mounted on the vertical shafts.

The drawing uses various line styles, including solid, dashed, and hatched lines, to represent different parts and their assembly. The labels are placed near the corresponding components for identification.

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MOLD FOR CONCRETE WALLS.
APPLICATION FILED FEB. 26, 1908.

953,532.

Patented Mar. 29, 1910.

2 SHEETS—SHEET 2.

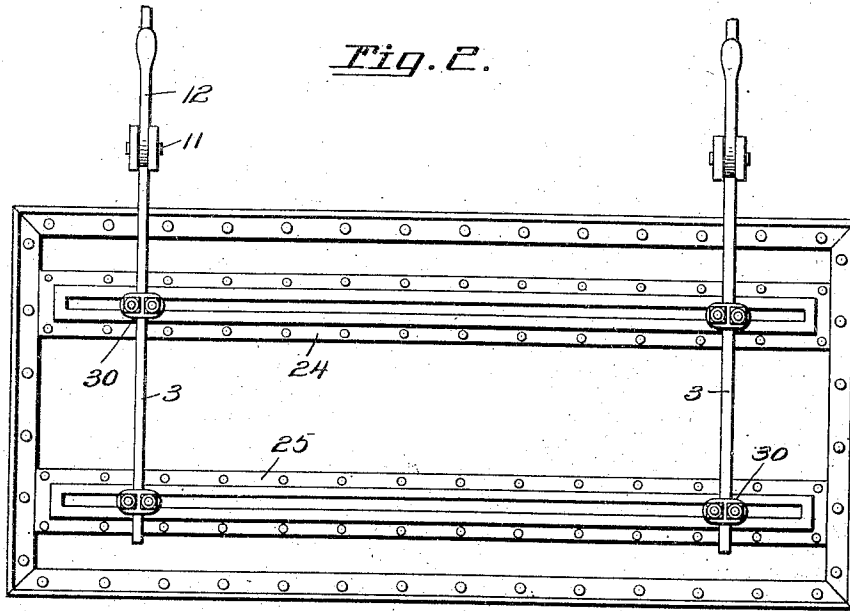


Fig. 3.

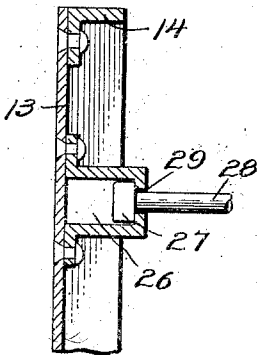


Fig. 4.

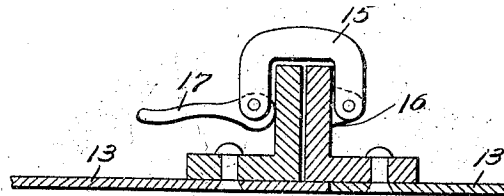


Fig. 5.

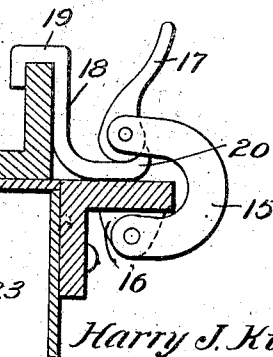
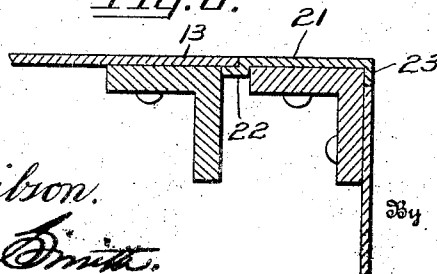


Fig. 6.



Witnesses

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MOLD FOR CONCRETE WALLS.

953,532.

Specification of Letters Patent.

Patented Mar. 29, 1910.

Application filed February 26, 1908. Serial No. 417,941.

To all whom it may concern:

Be it known that I, HARRY J. KIMMEL, a citizen of the United States, residing at Wenatchee, in the county of Chelan and State of Washington, have invented new and useful Improvements in Molds for Concrete Walls, of which the following is a specification.

This invention relates to molds for concrete walls, the object of the invention being to provide simple apparatus in the nature of a sectional mold adapted to be added to from time to time as occasion demands for the purpose of extending the molded wall and turning corners or forming offsets therein, the mold being made up of a series of sections constructed to have an overlapping and interlocking engagement with one another, the said sections being adjustably associated with supporting members and the latter combined with gaging members which serve to hold the mold sections at the proper distance apart to admit of the formation of a wall between them; also permitting the relative adjustment of the mold sections and their angular disposition with relation to each other to accommodate them to the particular shape of the wall being formed.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is an end view of opposite mold sections, the supporting bars thereof and the means for gaging the distance between the mold sections; also the means for adjusting the angularity of said sections. Fig. 2 is an outside or rear elevation of one of the mold sections, showing the connection of the supporting bars therewith. Fig. 3 is an enlarged detail vertical cross section through the same, showing the connection between the same and one of the bolts which secure the section to the adjacent supporting bar. Fig. 4 is a detail horizontal section illustrating the overlapping joints between the sections and one of the clamps. Fig. 5 is a detail horizontal section showing a corner joint between the sections and the clamping means therefor. Fig. 6 is a similar view showing the joint at the inner angle between contiguous sections.

The manner in which a wall is formed by

the mold of this invention is illustrated in Fig. 1 in which 1 designates a partially constructed wall and 2 oppositely located mold sections which it will be observed are arranged at a distance apart equal to the thickness of the wall 1, the wall being formed by introducing concrete in a plastic condition between the opposite mold sections 2.

The mold sections, as shown in Fig. 1, are connected to and supported by oppositely arranged mold supporting bars 3 which are connected adjustably to the mold sections by means hereinafter described, the said bars 3 extending upward a considerable distance above the mold sections where they are connected to and braced by means of upper and lower gage bars 4 and 5, respectively. The upper gage bar is provided with a plurality of rows of holes 6 adapted to receive pins 7 which pass also through holes in the bars 3 and thereby prevent relative movement between the upper ends of the supporting bars 3, two or more rows of holes being provided in order to make allowance for a fine adjustment of the distance between said supporting bars. The lower gage bar is provided for a portion of its length with holes 8 corresponding in arrangement with the holes 6 above described and adapted to receive a pin 9 which passes through the adjacent supporting bar 3. The opposite end portion of the bar 5 is provided with a series of slots or notches 10 which open out at their upper ends and incline outwardly toward their lower closed ends as seen in Fig. 1, the said slots being adapted to receive the trunnions or pivot 11 of a cam lever 12 which is arranged just outside of the adjacent supporting bar 3 as shown in Fig. 1, and acts as a cam lock between said supporting bar and the lower gage bar 5. The cam lever 12 is used to force the opposite mold sections 2 toward each other and into closed engagement with the portion of the wall which has been completed as illustrated in Fig. 1. It will also be observed in Fig. 1, that one or both of the bars 3 may be swung outward to an angle as indicated by dotted lines to correspondingly position the mold section carried thereby in order to give a flare to one or both sides of the wall 1 as also indicated by dotted lines in said figure. It may here be noted that the inner molding faces of the sections 2 may be either plain or figured or given any desired ornamentation in order

to impart a corresponding ornamentation to the adjacent surfaces of the wall under construction.

Each mold section, as shown in Figs. 2 and 3, comprises a face plate 13, and marginal frame pieces 14 of angle iron which extend along the four edges of the face plate 13 and are riveted or otherwise fastened thereto as shown. Along one end of the plate 13, the angle iron frame piece is set slightly inside of the extreme edge of said plate as shown in Fig. 4, while at the opposite end the angle iron frame piece is made to project a corresponding distance beyond the face plate 13 as also shown in the same Fig. 4 thus making provision for an overlapping joint between the contiguous ends of two adjoining sections, which are then fastened firmly together by means of a clamp comprising a U-shaped body 15 to one end of which is connected a pivoted jaw 16 adapted to bear flatwise against one of the angle irons, while to the opposite end of the clamp body there is pivotally connected a cam lever 17 adapted to bear against the opposite angle iron as shown in Fig. 4 to bind the two angle irons closely together and hold the mold sections in rigid relation to each other.

In forming the outer corner of a wall, the sections are combined as shown in Fig. 5 in which the two sections are shown as meeting at a right angle to each other, one of the angle irons overlapping the extreme edge of the face plate of the adjoining section, while the two sections are held together by means of a clamp the same as that illustrated in Fig. 4 but having in addition thereto a corner clip 18 embodying a hook 19 which fits around the outer edge of one of the angle irons and a lip 20 at its opposite end which is engaged by the head of the cam lever 17. In this way the outer corner of the mold is formed and the abutting mold sections held firmly in engagement with each other. The inner corner of the wall is formed by abutting sections shown disposed at a right angle to each other as seen in Fig. 6. In this case, however, an additional double angle plate 21 is employed the same having a rabbeted offset 22 to receive the projecting edge of the face plate of one section, and an intumed flange 23 adapted to engage over the corner of the angle iron of the adjoining section, the double angle plate 21 thus having an overlapping and interlocking engagement with the mold sections.

In order to provide for the adjustment of the mold sections upon the mold supporting bars 3, each section is provided with parallel slotted or shouldered bars 24 and 25 extending along the back and lengthwise

thereof as shown in Figs. 2 and 3, each of said bars being provided with a longitudinal channel 26 sufficiently wide to receive the heads 27 of the bolts 28 which secure the section to the adjacent mold supporting bar 3. The outer wall of the journal portion of each bar is provided with a longitudinal slot 29 along which the body or shank of the bolt 28 is movable for the purpose of adjusting the mold supporting bars 3 lengthwise of the section which they support, as clearly indicated in Fig. 2.

30 designates a bridge plate or washer adapted to straddle a pair of bolts as shown in Fig. 2 which bolts lie at opposite sides of the supporting bar 3 whereby a firm connection is obtained between each section and the supporting bars thereof, while at the same time providing for the relative adjustment of said members.

The adjustment between the mold sections and the supports therefor enables the sections to be set in proper relation to each other and also permits the sections to be set up or down to bring them to the required elevation.

Having thus described the invention, what is claimed as new, is:—

1. In a molding apparatus, the combination of oppositely arranged mold sections, mold supporting bars connected therewith, sets of parallel gage bars located at different elevations and having an adjustable connection with such supporting bars above the mold sections, one set of gage bars being provided with transversely aligned notches at one end, and a clamping device consisting of a detachable cam lever having trunnions projecting from opposite sides thereof and adapted to fit into any opposite pair of notches in the notched gage bars and operating against one of the mold supporting bars to crowd the mold sections toward each other.

2. In a molding apparatus, the combination of adjoining angularly disposed corner forming mold sections, angle iron frame pieces extending vertically of the abutting edges of the mold sections, a corner clip provided with a hook shaped flange embracing one of the flanges of one of the said frame pieces, and a clamp adapted to engage said corner clip and the adjacent frame piece and hold the adjoining mold sections together, said clamp embodying a U-shaped body and a cam lever.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY J. KIMMEL.

Witnesses:

GEORGE W. PAYTON,
W. R. WILSON.