

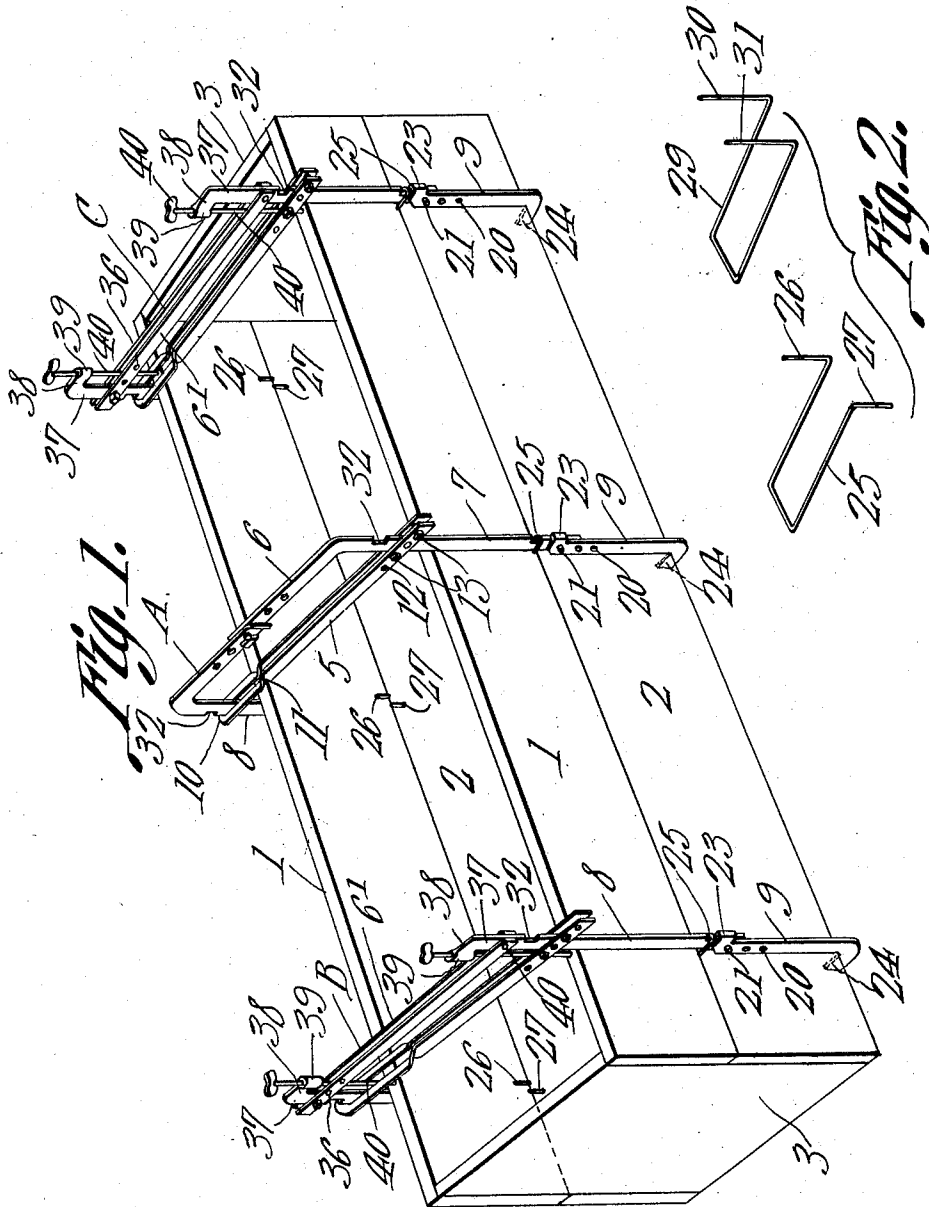
H. O. MEEK.
CONCRETE MOLD.

APPLICATION FILED JAN. 21, 1911.

1,016,285.

Patented Feb. 6, 1912

2 SHEETS—SHEET 1.



Witnesses

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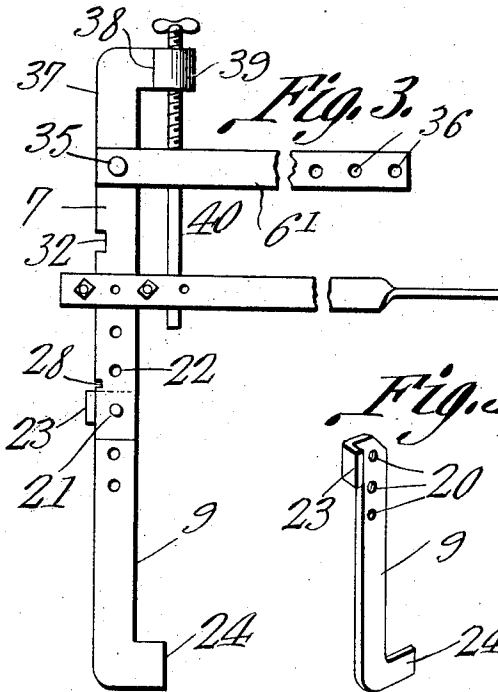
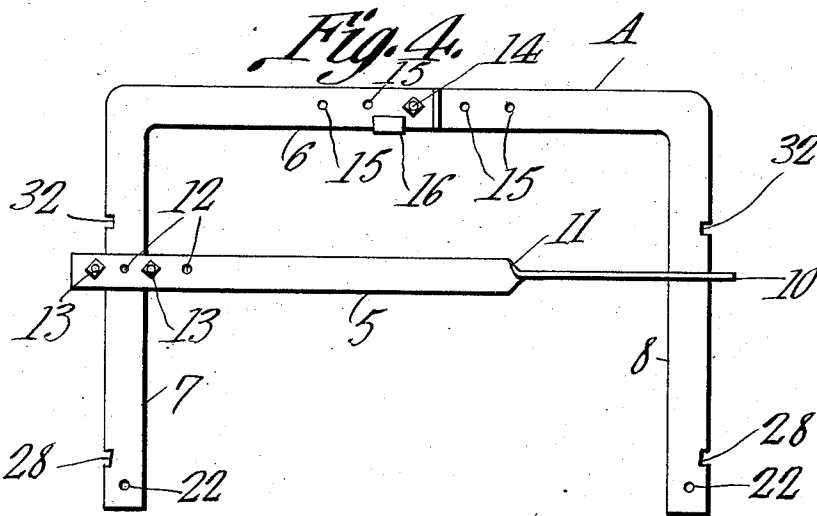
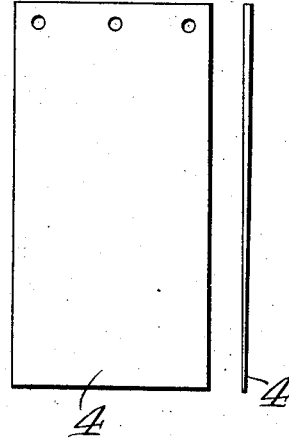


Fig. 6. Fig. 7.



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UNITED STATES PATENT OFFICE.

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CONCRETE-MOLD.

1,016,285.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HERREMAN O. MEEK, a citizen of the United States, residing at Garden City, in the county of Finney and State of Kansas, have invented a new and useful Concrete-Mold, of which the following is a specification.

This invention relates to concrete molds.

The objects of the invention are to improve, strengthen, and simplify the construction of the clamping or retaining means for concrete mold boxes or forms, as well as to increase their efficiency in use and to decrease the expense attending their manufacture.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawing forming a part of this specification, Figure 1 is a perspective view of a mold box or form of the knock-down variety, the boards forming the mold being held in assembled position by means of the improved clamping or retaining devices of the present invention; Fig. 2 is a detail view showing in perspective a pair of novel clips forming part of the present invention, the right-hand clip being adapted to engage either the lower edge of the lowermost board of the mold box or the upper edge of the uppermost board thereof, and the left-hand clip being adapted simultaneously to engage the upper edge of the lowermost board and the lower edge of the uppermost board, whereby to hold said mold boards in position; Fig. 3 is a detail end elevation showing a part of one of the end clamping devices shown in Fig. 1, said end clamping device being partly broken away and the right-hand side pieces thereof being omitted. Fig. 4 is an end elevation showing the intermediate clamping device of Fig. 1; Fig. 5 is a detail perspective view showing one of the adjustable, pivotally movable and detachable lower side pieces, adapted for use in connection with either the end clamping devices or the intermediate clamping device as shown in Fig. 1; Fig. 6 is a side elevation of a partition board adapted for use in di-

viding the mold box shown in Fig. 1 into compartments; and Fig. 7 is an edge view of said partition board.

The concrete mold of the present invention preferably includes a mold box or form of the knock-down variety, as shown in Fig. 1, said form being composed preferably of upper side boards 1—1, lower side boards 2—2, end boards 3—3, and, if desired, partition boards such as shown in Figs. 6 and 7, together with any suitable bottom and top boards, not shown.

The means for securing the mold box or form in assembled position during the molding operation preferably includes an intermediate clamping device indicated generally by the letter A, and a pair of end clamping devices indicated generally by B and C.

The intermediate clamping device A as shown best in Figs. 1 and 4 of the drawing, preferably includes a lower cross piece 5, an upper cross piece 6, upper side pieces 7 and 8, and lower side pieces 9, the specific character of which is best shown in Fig. 5. The lower cross piece 5 of the intermediate clamp A preferably is formed of a flat bar of metal bent into approximately U-shape, the closed end 10 thereof being bent so as to have its plane of flatness lie in a horizontal plane, said bar having its free ends twisted, as indicated at 11, so that said free ends will be disposed in vertical planes. The free ends of the lower cross piece 5 are provided with spaced perforations or openings 12, which serve adjustably to receive bolts 13 arranged on opposite sides of the upper side piece 7. By disposing the bolts 13 in different holes 12 the lower cross piece 5 can be adapted to different adjustments of the clamp.

The upper cross piece 6 of the clamping device A preferably is formed in two sections which are pivotally and adjustably connected with each other by means such as the bolt 14 adapted to be extended through any registering pair of openings 15 in the two sections of the cross piece 6. The right-hand section of the cross piece 6 in Fig. 4 preferably is provided with a lateral extension or offset 16 which engages beneath the lower edge of the left-hand section of said cross piece, and thereby serves as a stop to prevent the lower ends of the side pieces 7 and 8 from being moved inward at their lower ends any farther than

is shown in Fig. 4, at the same time permitting said side pieces to be moved freely outward. In other words, the offset 16 serves to produce a stop which will prevent the joint between the two sections of the upper cross piece 6 from being broken upward, but will permit said joint to be broken in a downward direction. By removing the bolt 14 and fitting it into different openings 15, the length of the upper cross piece 6 can be increased or decreased.

A lower side piece such as 9 in Fig. 5 is adjustably and detachably connected to the lower end of each of the upper side pieces 7 and 8. Each of these lower side pieces 9 is provided with a plurality of spaced openings 20 adapted to be engaged by a bolt 21 which passes through an opening 22 in the lower end of the upper side piece. Each lower side piece 9 is provided with an extension or offset 23 which engages the outer edge of the upper side piece so as to prevent the lower side piece from swinging outwardly beyond the vertical plane of the upper side piece. At its lower end each lower side piece 9 is formed with an inward extension 24 which projects below the lower edge of the lowermost side board of the form or mold box.

For the purpose of holding the lower edge of the uppermost form board in position, as well as to hold the upper edge of the lowermost form board and all intermediate boards, a clip such as 25 in Fig. 2, is provided, said clip being preferably, although not essentially, formed of wire or bar metal bent into the shape of the letter U and having one terminal bent upward, as indicated at 26, and the other terminal bent downward as indicated at 27, said clip being fitted around the upper side pieces 7-8 and projecting through the joint between the side boards, one of the terminals 26 holding one board in position, and the other terminal 27 holding the other board in position. The closed end of the clip preferably fits into a notch 28 formed in the upper side piece 7-8.

The upper and lower edges of the form boards are held in position by means such as the clip 29 having both of its terminals 30-31 extended in the same direction. If it be desired to use a shallow form or mold box, the lower side pieces 9 of the clamping devices will be omitted and clips such as 29 in Fig. 2 will be fitted into the notches 28 of the upper side pieces 7-8, so as to engage the lower edges of the lowermost form boards and hold them in position.

The lower cross piece 5 of the intermediate clamping device A, when the form or mold box is set up, is usually in the lowermost position shown in Figs. 1 and 4, so as tightly to clamp the form or mold box. When it is desired to open the mold box,

the lower cross piece 5 is raised until it engages the notches or cutaway portions 32 formed in the upper side pieces 7 and 8, as shown in Fig. 4, at which time sufficient play is afforded to the side pieces 7 and 8 to permit the form to be removed from the work.

The end clamping devices B and C are practically the same in construction as the intermediate clamping device A. The lower side pieces 9 are the same as those used with the intermediate clamping device. The principal feature of difference between the end clamping devices and the intermediate clamping device is that the upper cross piece 6' is formed of two single pieces bolted to opposite sides of the upper side piece 7, as indicated at 35, and having in its opposite end a series of spaced openings 36 by means of which it is adjustably connected with the upper side piece 8. Each of the side pieces 7 and 8 of the end clamps is extended upward, as indicated at 37, and inward, as shown at 38, and is formed with an internally threaded sleeve portion 39 through which extends an adjusting rod 40 which is intended to be screwed downward onto the upper edge of the boards of the mold box or form, so as to clamp them in proper position. In other respects, the end clamping devices B and C are the same as the intermediate clamping device A.

As the operation of the invention is obvious from the foregoing description in connection with the drawing, a specific description thereof is deemed to be unnecessary.

What is claimed is:

1. A concrete mold comprising a form; side pieces extended along the sides of the form, and having their upper ends pivotally connected, across the top of the form; an arched cross piece having its bend engaged with one of the side pieces, its free ends extending along the other of the side pieces; a connecting element in the free ends of the cross piece, to bind the free ends of the cross piece against the last mentioned side piece; there being a notch in the outer edge of said side piece, into which the connecting element is adapted to move, when the cross piece is slid longitudinally of the side pieces, and in the direction of its length, the registering of the connecting element in the notch permitting the side pieces to be swung apart, thereby to free the sides of the form.
2. A concrete mold comprising a form; side pieces extended along the sides of the form and having their upper ends pivotally connected, across the top of the form; an arched cross piece having its bend engaged with one of the side pieces, its free ends extending along the other of the side pieces; a connecting element in the free ends of the cross piece, adapted to bind the free ends of the cross piece against the last mentioned

side piece; there being notches in the outer edges of the side pieces, into which notches the bend of the cross piece, upon the one hand, and the connecting element, upon the other hand, may move, when the cross piece is slid longitudinally of the side pieces, and in the direction of its length.

3. A concrete mold comprising a form; side pieces extending along the sides of the form, and having their upper ends turned to overhang the upper edges of the form; screws threaded into the turned portions of the side pieces, and adapted to bear against the upper edges of the form; an upper cross piece adjustably connecting the side pieces; and a lower cross piece adjustably connecting the side pieces, below the upper cross piece, the lower cross piece being of arched

construction, and having its bend engaged with one of the side pieces; a connecting element uniting the free ends of the lower cross piece, to bind the same against the other side piece; there being a notch in the outer edge of said side piece, which the connecting element is adapted to enter, when the lower cross piece is elevated, thereby permitting the side pieces to be swung apart, to free the sides of the form.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HERREMAN O. MEEK.

Witnesses:

J. W. BUTT,
M. S. BUTT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."