J. URBAN.

MOLD FOR GARBAGE RECEPTACLES.

APPLICATION FILED SEPT. 7, 1915.

1,182,944.

Patented May 16, 1916.

4 SHEETS—SHEET 1.

Fig. 2.

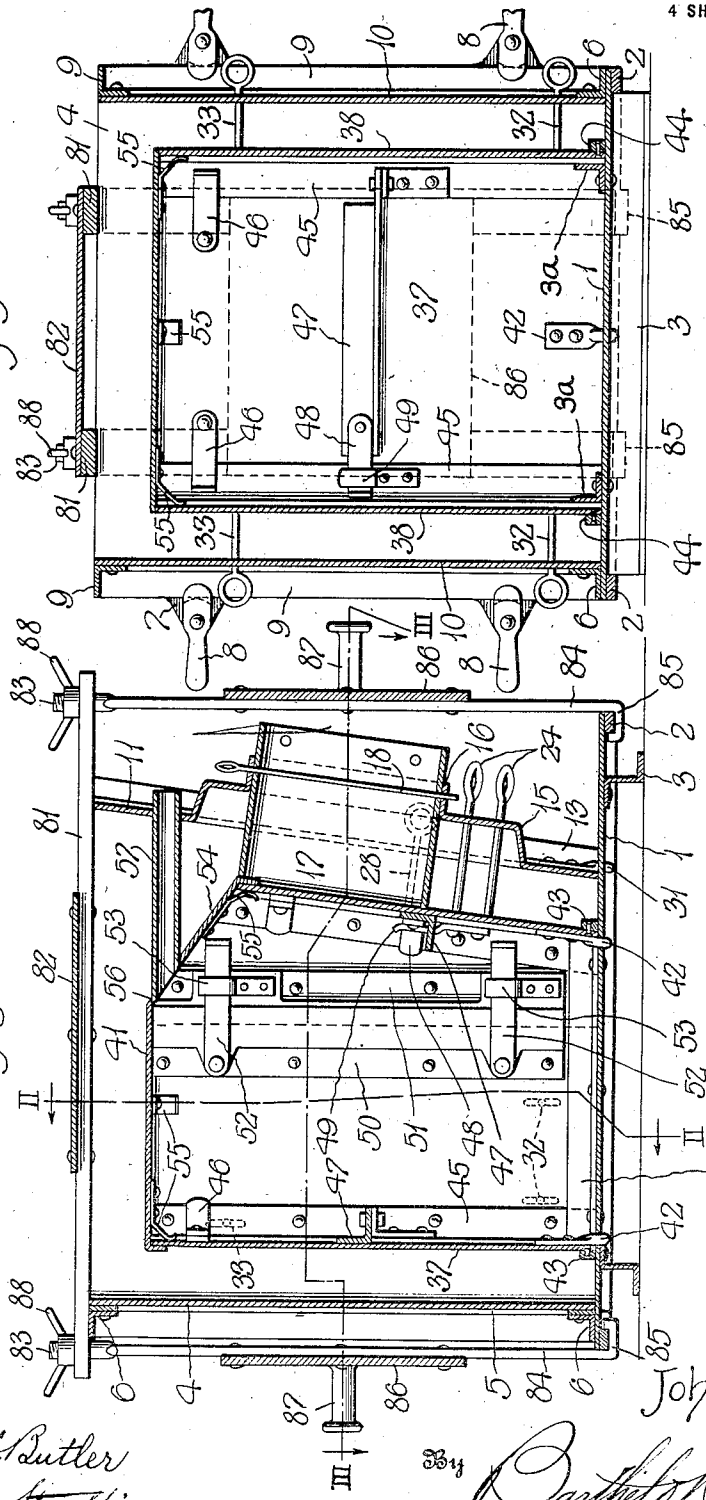


Fig. 1.

Witnesses

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4 SHEETS—SHEET 2.

Fig. 4.

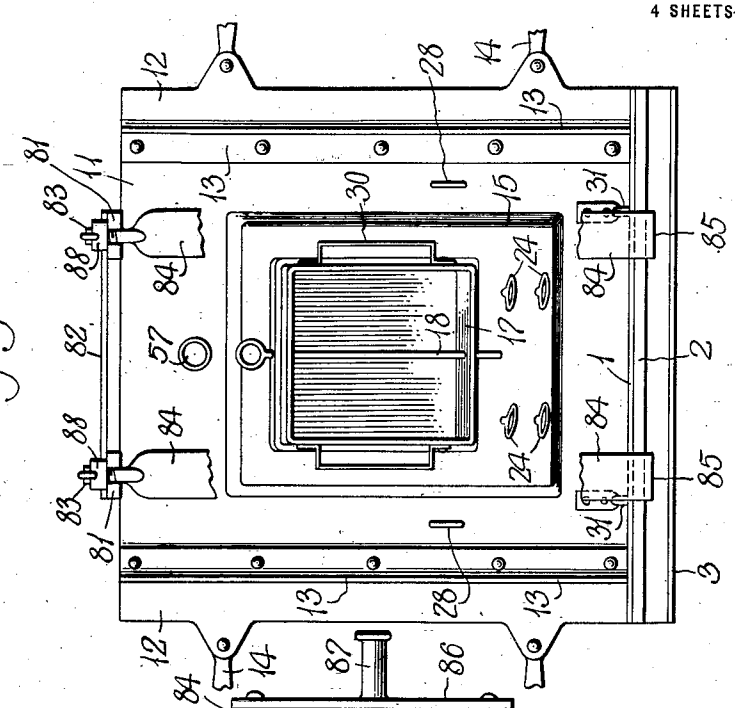
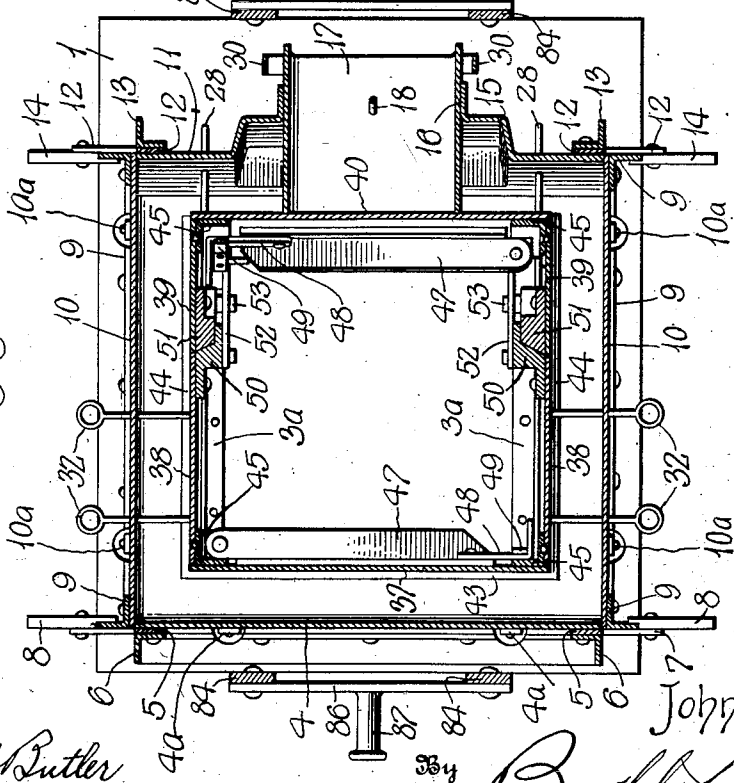


Fig. 3.



Witnesses

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4 SHEETS—SHEET 3.

Fig. 8.

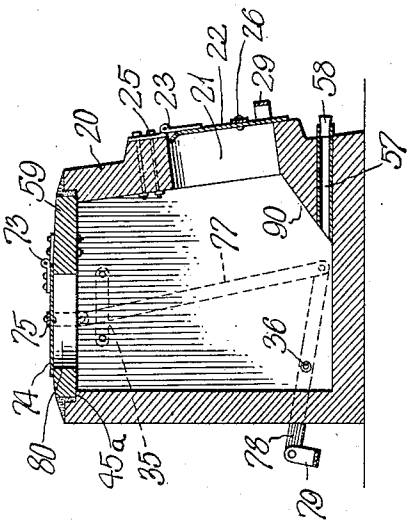


Fig. 7.

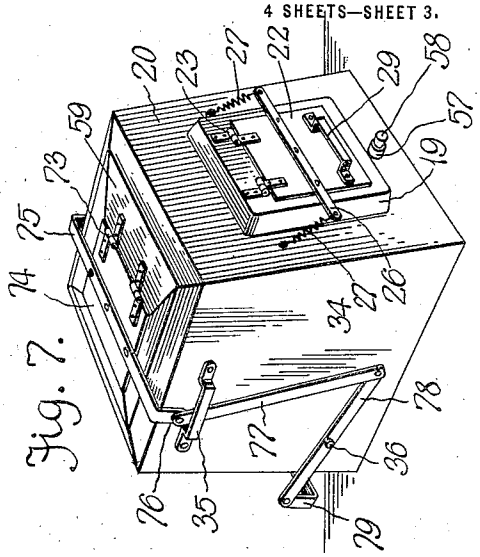


Fig. 5.

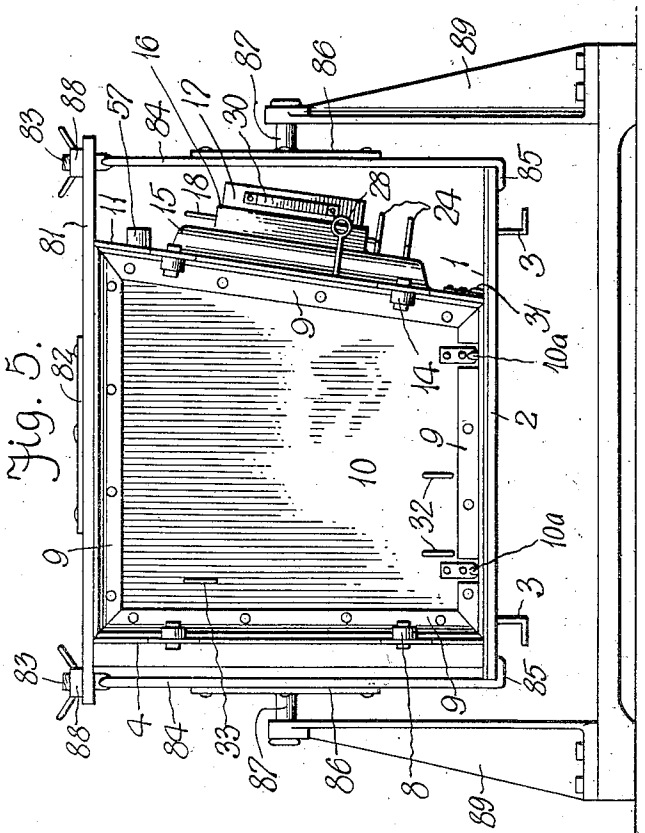
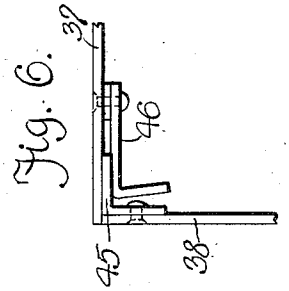


Fig. 6.



Witnesses

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4 SHEETS—SHEET 4.

Fig. 10.

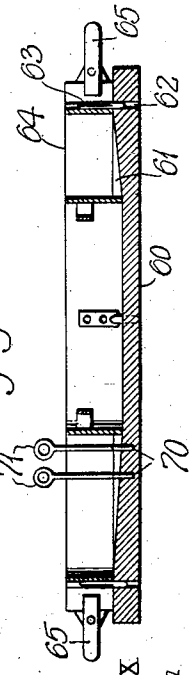


Fig. 11.

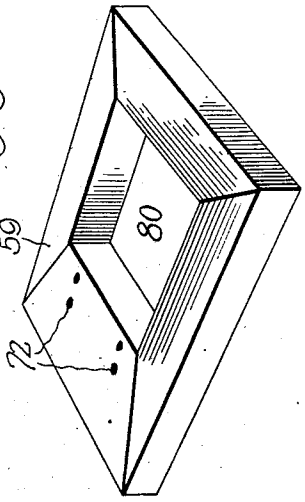
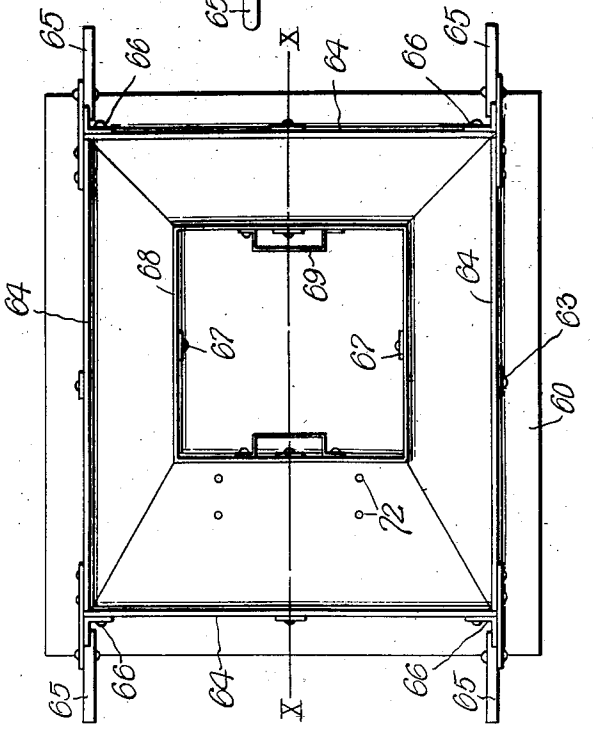


Fig. 9.



Witnesses

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UNITED STATES PATENT OFFICE.

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MOLD FOR GARBAGE-RECEPTACLES.

1,182,944. Specification of Letters Patent. Patented May 16, 1916.

Application filed September 7, 1915. Serial No. 48,148.

To all whom it may concern:

Be it known that I, JOHN URBAN, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Molds for Garbage-Receptacles, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to molds for concrete receptacles, and my invention aims to provide a novel mold by which concrete receptacles, such as garbage containers, can be expeditiously and economically produced from concrete or a similar plastic material.

In the production of concrete receptacles having comparatively thick walls, it is essential that the mold have rigid and durable walls articulated in a manner that permits of the walls being easily and quickly assembled and disassembled. With this thought in view, the greater part of the mold is made of metal and novel means is provided for holding the various walls of the mold in position to withstand stresses and strains during the pouring of concrete and the formation of receptacle walls.

My invention further aims to provide a novel mold for producing a sanitary garbage receptacle possessing many improvements which permit of garbage being easily placed in the receptacle and readily removed from the same. The receptacle so produced has water shedding surfaces and provision is made whereby the receptacle can be easily drained of any liquid garbage that may accumulate therein.

My invention will be better understood when the construction of the mold has been considered, and reference will now be had to the drawings, wherein there is illustrated a preferred embodiment of my invention, but it is to be understood that the structural elements are susceptible to such changes, in size, shape and manner of assemblage, as fall within the scope of the appended claims.

In the drawings, Figure 1 is a longitudinal sectional view of a mold in accordance with my invention; Fig. 2 is a cross sectional view taken on the line II—II of Fig. 1; Fig. 3 is a horizontal sectional view taken on the line III—III of Fig. 1; Fig. 4 is a front elevation of a mold, partly broken away and partly in section; Fig. 5 is a side elevation of a mold; Fig. 6 is a plan of a portion of the mold, illustrating a wall connection of the core of the mold; Fig. 7 is a perspective view of a completed article, the receptacle portion of which is produced by the mold; Fig. 8 is a longitudinal sectional view of the same; Fig. 9 is a plan of a cover mold; Fig. 10 is a longitudinal sectional view taken on the line X—X of Fig. 9, and Fig. 11 is a perspective view of the cover produced by the mold shown in Figs. 9 and 10.

In Figs. 1 and 2, the mold is illustrated in an inverted position, and it is in this position that concrete or other plastic material is placed in the mold. The mold necessarily includes an outer casing and a core, both of which are collapsible in order that the same may be removed after a receptacle has been formed having a bottom wall, side wall and front and rear walls. The top of such receptacle is formed by a different mold, and reference will first be had to the outer casing of the mold shown in Figs. 1 to 5 inclusive. The outer casing comprises a base plate 1, rectangular in plan, and the bottom side of said base plate has a reinforcing or stiffening frame 2 and transverse Z bars 3, which serve functionally as feet for the mold, while concrete is being poured into the same. On the base plate 1 are longitudinal parallel angle bars 3^a serving as guides and braces for the core of the mold. On the rear end of the base plate 1 is a rear wall 4, said wall being reinforced and stiffened by a rectangular frame 5 and angle bars 6. The sides of the rectangular frame 5 have projecting lugs 7 and pivotally connected to said lugs, as best shown in Fig. 2, are latches 8. These latches are adapted to be swung into engagement with angle bars 9 stiffening and reinforcing said walls 10. The side walls 10 rest upon the bottom plate 1, and the forward edges of said side walls are disposed at an inclination or cut of an angle, whereby an inclined front wall 11 can be placed upon the bottom plate 1 against the forward edges of the side walls 10. The inclined front wall 11 has a frame 12 and angle bars 13, and said frame supports latches 14 adapted to engage the angle bars 9 of the side walls 10. The elements 12, 13 and 14 correspond to the elements 5, 6 and 8 of the rear wall 4. The front wall 11 has a rectangular offset portion 15 provided with a rectangular opening 16 to accommodate a gate core 17 held in position by a pin 18 passing through the core and

engaging in the offset portion 15 of the front wall. The offset portion 15 is adapted to form a rectangular enlargement 19 on the inclined end wall 20 of the concrete receptacle shown in Figs. 7 and 8, and the gate core 17 is adapted to form a rectangular opening 21 in the wall 20. This opening is normally closed by a metallic gate 22 connected to the enlargement 19 by hinges 23, and in order that the hinges may be connected to the enlargement 19, the offset portion 15 is provided with detachable pins 24 adapted to form openings in the wall 20 whereby the hinges 23 may be connected thereto by bolts and nuts 25 or other fastening means. The gate 22 has a transverse bar 26, and the ends of this bar are connected by coiled retractile springs 27 to the wall 20. To facilitate connecting the springs to said wall, the front wall 11 is provided with pins 28 adapted to form openings to accommodate fastening means for said springs. These springs are adapted to retain the gate 22 closed or opened, and said gate has a suitable handle or bail 29. To facilitate removing the gate core 17, after the pin 18 is removed, handles 30 on the sides of the gate core are gripped, and to facilitate positioning the front wall 11, the lower edge of said wall has dowels 31 to engage in openings provided therefor in the base plate 1. The side walls 10 have dowels 10^a and the end walls 4 have dowels 4^a, all of said dowels extending through cut away portions of the angle bars 6 and 9 of the walls to engage in the base plate 1. The side walls 10 are provided with detachable pins 32 and 33, the former providing openings in the side walls 34 of the concrete receptacle, whereby straps 35 may be connected to the outer sides of said wall. The pins 33 provide openings in the same walls to accommodate pivot pins 36, and the purpose of said pins and said straps will be hereinafter referred to.

Reference will now be had to the core of the mold, which comprises a rear wall 37, side walls composed of sections 38 and 39, a front wall 40 and a top wall 41. The rear, side and front walls are in spaced relation to the walls of the outer casing in order to form walls of the concrete receptacle, and to properly space said walls, the lower edges of the front and rear walls 40 and 37 have dowel pins 42 adapted to engage in the base plate 1 of the outer casing. These walls also have the lower edges thereof provided with cleats 43 coöperating with cleats 44 of the sectional side walls in providing a seat 45^a at the top of the concrete receptacle. See Fig. 8. The inner sides of the sectional side walls are provided with stiffening or reinforcing angle bars 45 against which the walls 37 and 40 rest. These angle bars are engaged by pivoted latches 46, carried by the walls 37 and 40, and the angle bars of each wall are connected by a cross bar 47 pivotally supported by one angle bar and extending across to the other angle bar where it has a pivoted latch 48 engaging a keeper 49 on said angle bar. This construction is best shown in Fig. 2. The lower ends of the angle bars 45 engage the center sides of the angle bars 3^a at the ends thereof and coöperate with the dowel pins 42 in correctly positioning the core. The sections 38 and 39 of the side walls have abutting beveled cleats 50 and 51 and the former are provided with pivoted latches 52 adapted to engage in keepers 53 carried by the cleats 51. These abutting beveled cleats are carried by the inner sides of the sections 38 and 39, and it is necessary to make each of these side walls of two sections, whereby the wall sections may be shifted inwardly and the core easily disassembled. The sections 39 of the side walls have the upper edges thereof beveled to support a beveled portion 54 of the top plate 41, said top plate having flanged edges to engage the upper edges of the walls 37 and 40. The bottom side of the top plate 41 has resilient positioning clips 55 adapted to engage the inner sides of the sectional side walls and the walls 37 and 40. The angularly disposed portion 54 of the top plate 41 is provided with an opening 56 to accommodate a tube 57 extending through the inclined front wall of the outer casing, as best shown in Fig. 1. The tube 56 may remain in the front wall 20 of the concrete receptacle, as best shown in Fig. 8, and provide a drain for liquid garbage that may accumulate within the receptacle. The outer end of the tube 57 may be closed by a stopper 58.

Reference will now the had to the formation of a cover 59 adapted to be placed upon the seat 45^a of the concrete receptacle to close the top of the same, said cover being cemented or otherwise secured in position. To form this cover a mold board 60 is employed, said mold board having the top thereof provided with inclined faces 61. At the outer edges of the faces 61 are openings 62 for dowel pins 63 carried by outer retaining walls 64 mounted upon the mold board. The retaining walls 64 are connected together similar to the walls of the outer casing of the mold, that is, by pivoted latches 65 engaging angle bars 66, as best shown in Figs. 9 and 10. At the inner edges of the inclined faces 61 are openings for dowel pins 67 positioning a rectangular frame 68, said frame having handles 69 whereby it may be easily moved. Adjacent to the frame 68 are openings 70 in the mold board 60 to accommodate sets of pins 71 adapted to produce openings 72 in the molded cover 59, as best shown in Fig. 11. The openings 72 permit of hinges 73 being

connected to the cover to accommodate a metallic lid 74. Connected to the metallic lid 74 is a transverse strap 75 having depending ends pivotally connected, as at 76, to links 77 extending through the straps 35. The lower ends of the links 77 are pivotally connected to bars 78 fulcrumed upon the pivot pins 36. The bars 78 are connected by a stirrup 79 and by depressing the stirrup 79, the lid 74 is automatically opened, thereby allowing a person to easily place garbage in the receptacle through the opening 80 formed in the cover 59.

With the core properly assembled within the outer casing and all of the pins in position, clamping bars 81 are placed longitudinally of the top of the outer casing, said bars being connected by a plate 82. The ends of the clamping bars 81 are slotted to receive the threaded ends 83 of tie bars 84, said tie bars having hook shaped ends 85 to engage under the marginal edges of the base plate 1, as best shown in Fig. 1. The tie bars 84 at each end of the mold are connected by end plates 86 provided with trunnions 87, and said tie bars are retained in engagement with the clamping bars 81 by winged thumb nuts 88 screwed upon the threaded ends of said bars. With all of the elements thus assembled, concrete can be poured into the outer casing and if necessary tamped therein. After the outer casing is filled with concrete, the concrete is leveled off flush with the upper edges of the walls of the outer casing. The concrete is then allowed to solidify and season if necessary, and to facilitate inverting the mold, a pair of horses or end bearings 89 may be employed to support the trunnions 87 and hold the mold in an elevated position, as shown in Fig. 5. After the concrete has solidified, the mold can be inverted, suitable blocks placed under the same, the tie bars 84 removed and then the outer casing and core disassembled. The concrete receptacle formed in this manner can be advantageously located in an opening of a fence or wall, with the greater portion of the receptacle at the inner side of the fence, whereby the lid 74 can be opened and garbage placed therein. The gate 22 will be on the outside of the fence and by opening said gate, a shovel can be inserted in the receptacle to remove garbage. The gate opening 21 has been disposed at an acute angle relative to the bottom of the receptacle to prevent garbage from passing through said opening, particularly liquid garbage, and in order that such garbage will settle to the bottom of the receptacle, the angularly disposed portion 54 of the top plate 41 of the core produces an inclined wall 90 at the inner end of the gate opening 21.

What I claim is:—

1. A mold for producing concrete receptacles, comprising a base plate, an outer casing on said base plate composed of side walls, rear and front falls, means for connecting said front and rear walls to said side walls, a core in said outer casing composed of sectional side walls, means for connecting the sections of said side walls, rear and front walls, means for connecting said rear and front walls to said sectional side walls; means for clamping the walls of said outer casing to said base plate whereby said mold can be inverted, and means to facilitate inverting said mold.

2. A mold for producing concrete receptacles, comprising a base plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said rear and front walls to said side walls, dowel pins carried by all of said walls and extending into said base plate; a core in said outer casing composed of sectional side walls, means for connecting the sections of said side walls, means for connecting the side walls together, rear and front walls, means for connecting said rear and front walls to said sectional side walls; means for clamping the walls of said outer casing to said base plate whereby said mold can be inverted, and means to facilitate inverting said mold.

3. A mold for producing concrete receptacles, comprising a base plate, angle bars on said base plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said side walls to said rear and front walls, dowel pins carried by all of said walls and extending into said base plate; a core in said outer casing composed of side walls engaging the angle bars of said base plate, rear and front walls, means for connecting said rear and front walls to said side walls, the top wall frictionally engaging the walls of said core; and means for clamping the walls of said outer casing to said base plate whereby said mold can be inverted.

4. A mold for producing concrete receptacles comprising a base plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said walls to said side walls, a gate core carried by said front wall; a core in said outer casing composed of side walls, front and rear walls, means for connecting said front and rear walls to said side walls, a top wall frictionally engaging the walls of said core, and means for clamping the walls of said outer casing to said base plate whereby said mold can be inverted.

5. A mold for producing concrete receptacles comprising a base plate, angle bars on said base plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said rear and front walls to said side walls, an offset por-

tion forming part of said front wall, a gate core carried by the offset portion of said front wall; a core in said outer casing composed of sectional side walls, means for connecting the sections of side walls, rear and front walls connected to said sectional side walls, a top wall frictionally engaging the walls of said core, means for clamping the walls of said outer casing to said base plate whereby said mold can be inverted, and means to facilitate inverting said mold.

6. A mold for producing concrete receptacles comprising a base plate, a gate carried by said plate, angle bars on said plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said front and rear walls to said side walls; a core in said outer casing composed of sectional side walls engaging the angle bars of said base plate, means connecting the sections of said walls, means for connecting said side walls together, rear and front walls, means for connecting said rear and front walls to said sectional side walls, a top plate frictionally engaging the walls of said core, and means for clamping the walls of said outer casing to said base plate whereby said mold may be inverted.

7. A mold for producing concrete receptacles, comprising a base plate, angle bars on said base plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said walls to said side walls, dowel pins carried by all of said walls and extending into said base plate, an offset portion forming part of said front wall, a gate core carried by said front wall; a core in said outer casing composed of side walls, front and rear walls, means for connecting said side walls together, means for connecting said rear and front walls to said sectional side walls, a top wall frictionally engaging the walls of said core and having an inclined portion, a tube connecting said top plate and the front wall of said outer casing, and means for clamping the walls of said outer casing to said base plate whereby said mold can be inverted.

8. A mold for producing concrete receptacles, comprising a base plate, feet carried by said plate, angle bars on said plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said rear and front walls to said side walls; a core in said outer casing composed of sectional side walls engaging the angle bars of said base, means for connecting the sections of said side walls, means for connecting said side walls together, rear and front walls, means for connecting said rear and front walls to said sectional side walls, a top wall frictionally engaging the walls of said core and having an inclined portion, means for clamping the walls of said outer casing whereby said mold can be inverted, and means to facilitate inverting said mold.

9. A mold for producing concrete receptacles, comprising a base plate, angle bars on said base plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said rear and front walls to said side walls, dowel pins carried by all of said walls and extending into said base plate, an offset portion forming part of said front wall, a gate core carried by the offset portion of said front wall; a core in said outer casing composed of sectional side walls engaging the angle bars of said base plate, means for connecting the sections of said side walls, means for connecting the side walls together, rear and front walls, means for connecting said rear and front walls to said sectional side walls, means for clamping the walls of said outer casing to said base plate whereby said mold can be inverted, and means to facilitate inverting said mold.

10. A mold for producing concrete receptacles, comprising a base plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said rear and front walls to said side walls, an offset portion forming part of said front wall, a gate core carried by the offset portion of said front wall; a core in said outer casing composed of sectional side walls, means for connecting the sections of said side walls, means for connecting the side walls together, rear and front walls, means for connecting the rear and front walls together, sectional side walls, a top wall frictionally engaging the walls of said core and having in inclined portion, a tube connecting said inclined portion of said top plate and the front wall of said casing, means for clamping the walls of said outer casing to said base plate whereby said mold can be inverted.

11. A mold for producing concrete receptacles, comprising a base plate, feet carried by said base plate, angle bars on said plate, an outer casing on said base plate composed of side walls, rear and front walls, means for connecting said walls to said side walls, dowel pins carried by all of said walls and extending into said base plate, an offset portion forming part of said wall, a gate core carried by the offset portion of said front wall; a core in said outer casing composed of sectional side walls engaging the angle bars of said base, means for connecting the sections of said walls to the side walls, means for connecting said side walls together, rear and front walls, means for connecting said rear and front walls to said sectional side walls, a top wall frictionally engaging the walls of said core and having an inclined portion, means for clamping the walls of said outer casing to said base plate

whereby said mold can be inverted, and means to facilitate inverting said mold.

12. A mold for producing concrete receptacles comprising knock-down outer casing, and a core within said casing composed of sectional side walls, rear and front walls, means for connecting said rear and front walls to said sectional side walls, a top wall frictionally engaging the walls of said core, and means holding said core relative to said casing whereby said mold can be inverted.

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

JOHN URBAN.

Witnesses:
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