A. FOLTZ.

MOLD FOR EARTHENWARE.

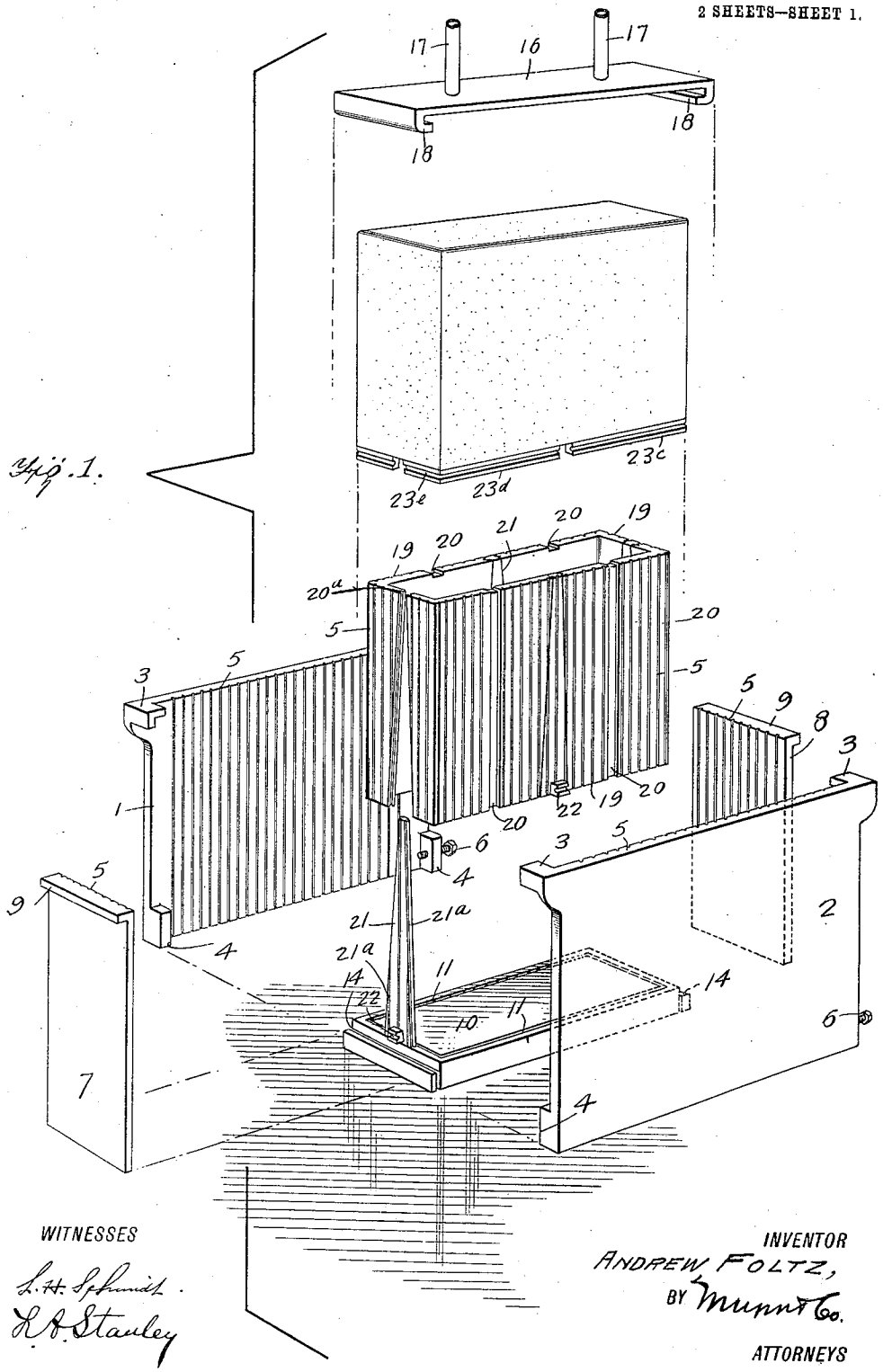
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1,087,007.

Patented Feb. 10, 1914.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 2.

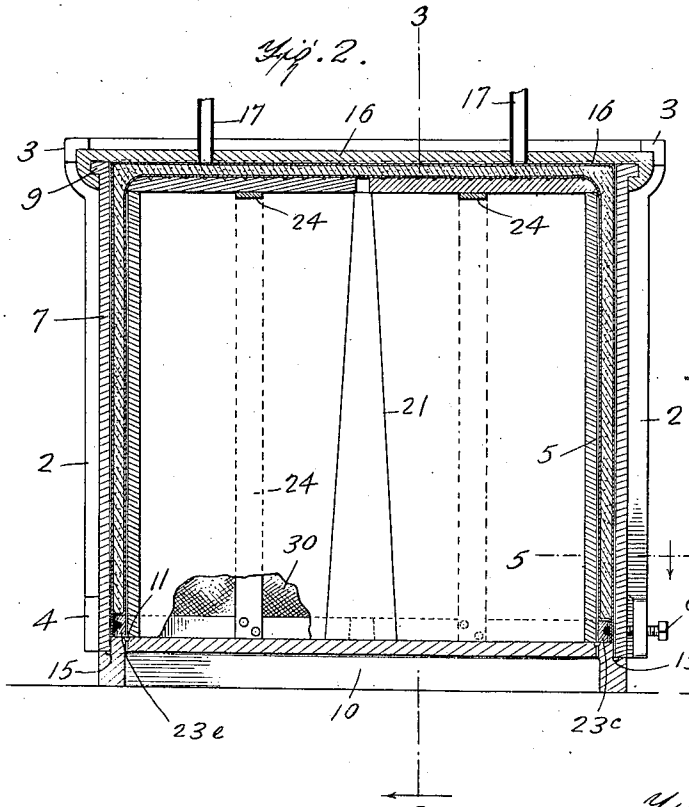


Fig. 3.

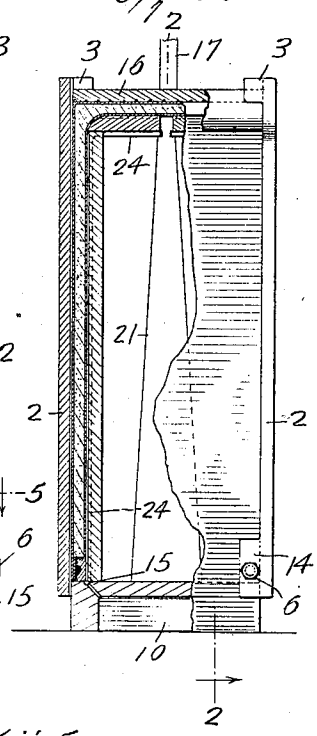


Fig. 4.

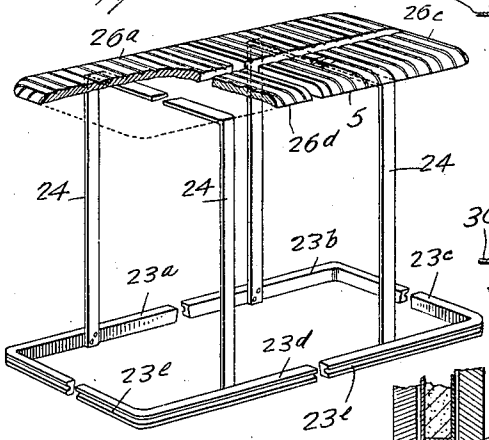


Fig. 5.

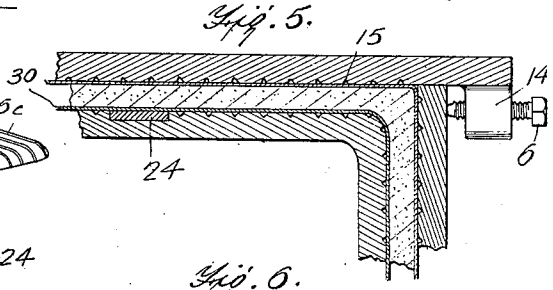


Fig. 6.

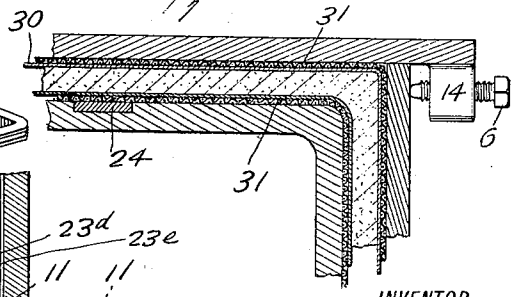
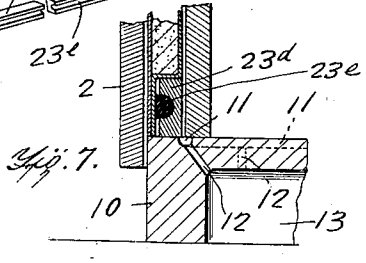


Fig. 7.



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MOLD FOR EARTHENWARE.

1,087,007. Specification of Letters Patent. Patented Feb. 10, 1914.

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To all whom it may concern:

Be it known that I, ANDREW FOLTZ, a citizen of the United States, and a resident of Lambertville, in the county of Hunterdon and State of New Jersey, have made certain new and useful Improvements in Molds for Earthenware, of which the following is a specification.

My invention relates to improvements in devices for molding earthenware articles, and it consists in the combinations, constructions, and arrangements herein described and claimed.

An object of my invention is to provide a device by means of which an article, such as a tank, may be molded by passing a stream of water containing particles of clay or other suitable material in suspension, into the mold, where the clay is deposited, the water being forced out by pressure.

A further object of my invention is to provide a novel form of molding apparatus of the type described having a core so arranged that parts may be removed from the core so as to permit the contraction of the latter, while still supporting the molded article.

A further object of my invention is to provide a molding device comprising a core and an outer casing with means for easily removing the casing from the core without injuring the article to be molded.

Other objects and advantages will appear in the following specification and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming part of this application in which—

Figure 1 is a perspective view showing the manner of assembling the parts of the device, Fig. 2 is a section along the line 2—2 of Fig. 3, Fig. 3 is a section along the line 3—3 of Fig. 2, Fig. 4 is a perspective view of the core frame and top, Fig. 5 is an enlarged section along the line 5—5 of Fig. 2, Fig. 6 is a section similar to Fig. 5, showing a modified form, and Fig. 7 is an enlarged sectional view through the base and sides of the structure showing the means for carrying off the water.

Referring now to Fig. 1, I have shown therein the various parts of the outer casing. These parts comprise side members 1 and 2 which are made of metal or other suitable material. Each side member has a lug or flange of L-shaped cross section, like that shown at 3 at both upper corners and a straight flange 4 at each lower corner. The side members have vertical grooves 5 on their interior portions, and one of the lower flanges 4 of each side member is provided with a set screw 6. The end members 7 and 8 consist merely of flat plates having vertical grooves 5 on their inner faces and being provided at their upper edges with the outwardly turned flanges 9. The base member 10 is provided with a groove 11 on its upper surface a short distance from each edge, the purpose of this groove will be explained later. The groove 11 (see Fig. 7) communicates at various intervals by means of channels 12 with the recessed portion 13 of the base 1. The ends of the base have recessed portions 14, a groove 15 being provided in the base portion, which forms a continuation of the recessed portion 14 (see Figs. 1 and 2). The top of the outer frame comprises a plate 16 provided with inlet pipes 17 on its upper surface, the ends of the top being provided with downwardly and inwardly extending flanges 18 of approximately J-shaped cross section as clearly shown in Fig. 1.

The body of the core is shown in Fig. 1. It consists of the four sections 19, these sections being held together by means of the wedges 21. In order to best illustrate the form of the wedge one of the wedges has been removed from its place and rests upon the base portion 10 in Fig. 1. It will be seen that the wedge is provided with tongues 21^a arranged to enter grooves such as that shown at 20^a in the adjacent edges of the core sections. Each wedge 21 is provided with a block 22 on its lower outer edge. Each core section is provided with a vertical groove 20.

The frame for the core is shown in Fig. 4. It consists of a rectangular base portion comprising the four sections 23^a, 23^b, 23^c and 23^d, each section having a groove 23^e on its outer face, and each section having an L-shaped bar 24 extending upwardly therefrom. The core is provided with a top made in four sections 26^a, 26^b, 26^c and 26^d to correspond with their respective base sections. The means for supporting the top will be explained in the operation of the device. The core is set up as shown in Fig. 1, all of the wedges being forced in to make the core body a unitary structure. The frame members 23^a, 23^b, etc., shown in Fig. 4 are now placed over the core body, the bars 24 and

25 entering into the grooves 20 on the outside of the core body. The top of the core will now rest partly upon the bars 24 and partly upon the upper edges of the core, as shown in Fig. 2. The sides of the core are placed upon the base in such a manner that the vertical grooves 5 on the outside of the core will register with the groove 11, as clearly shown in Fig. 2. It should be noticed that the top of the core is also provided with grooves 5, these grooves being for the purpose of carrying off the water as hereinafter explained. The end members 7 and 8 of the outer casing are now placed in the recessed portions 14 of the base. The top is now slid over the upper ends of the end members, the flanges 9 and 8 being engaged by the J-shaped flanges 18, as shown in Fig. 2. The side members 1 and 2 are now placed in position. It will be noted that the lugs 4 of the side members will inclose the end members, as shown in Figs. 3 and 5 at the bottom, and that the L-shaped lugs 3 will fit over the ends of the top 16, as shown in Figs. 2 and 3. Now by tightening the set screws 6, the mold is set up complete. It should have been stated that prior to the setting up of the mold the inner parts thereof, *i. e.*, those parts which are provided with grooves 5, and which consist of the interior portions of the outer casing, and the exterior portions of the core, are covered with some fabric such as canvas or any similar suitable filtering fabric 30.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. The water containing in suspension the material of which the article is to be made is now forced under pressure of not less than thirty pounds per square inch through the pipes 17 into the interior of the mold. The solid matter is deposited in the space between the outer case and the core and forms the article. The water passes through the fabric into the grooves 5, thence downwardly into the grooves 11 and out through the passages 12 into the space 13 beneath the base. This is continued until the satisfactory density of the material deposited within the space has been secured. The set screws 6 of the sides are now released and the sides are removed. The bottom portion of the end members are swung outwardly a short distance, the flanges of the end members turning slightly on the flanges 18. The top and the ends are now removed. The base is now removed and the wedges of the core are drawn downwardly leaving only the frame members shown in Fig. 4 with the top for supporting the molded article. It will be noticed that the bottom portions of the frame members form a supporting portion for the molded member. It will also be noted that the top as well as the frame members is now in four separate portions, so that as the article dries it may contract and still have a sustaining frame upon which to rest. As soon as it has attained sufficient strength, through drying, it may be subjected to any of the firing processes for producing a finished article, such subsequent process forming no part of the present invention.

In Fig. 6, I have shown a modified form of the device in which, instead of using grooves on the inner face of the exterior casing and the outer faces of the core, I use wire netting 31, which takes the place of these grooves and also form a backing for the fabric 30.

I claim:—

1. In a device for molding earthenware, the combination with an outer casing, of a core comprising a series of side sections having grooves on their outer sides and on their adjacent edges, a frame for holding said side sections together, said frame consisting of a plurality of bars arranged to enter the grooves on the outer side of the core, and wedges disposed between the adjacent ends of the side sections.

2. In a device for molding earthenware, the combination with an outer casing, of a core comprising a series of side sections having grooves on their outer sides and on their adjacent edges, a frame for holding said side sections together, said frame consisting of a plurality of bars arranged to enter the grooves on the outer side of the core, and wedges disposed between the adjacent ends of the side sections, said wedges being provided with tongues arranged to enter the grooves in the adjacent ends of the side sections.

3. In a device for molding earthenware, the combination with an outer casing, of a core comprising a series of side sections having grooves on their outer sides and on their adjacent edges, a frame for holding said side sections together, said frame consisting of a plurality of bars arranged to enter the grooves on the outer side of the core, wedges disposed between the adjacent ends of the side sections, said wedges being provided with tongues arranged to enter the grooves in the adjacent ends of the side sections, a base for the core, and a top for the core having grooves on its upper face, said top being composed of a series of sections corresponding with the side sections of the core.

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Witnesses:
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PHILIP J. FAHERTY.

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