March 10, 1964 M. L. MARLER 3,123,885

MEANS FOR MOLDING ARTICLES

Filed Sept. 29, 1960

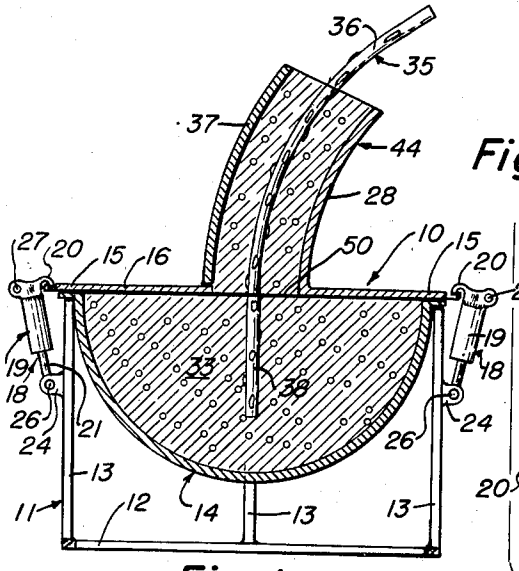


Fig. 1.

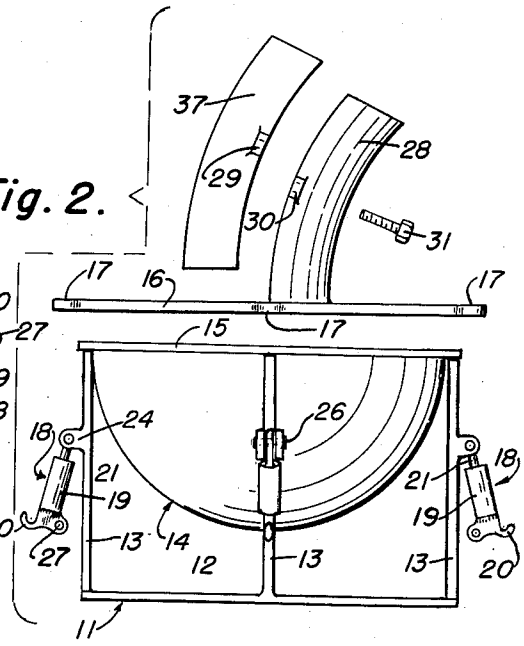


Fig. 2.

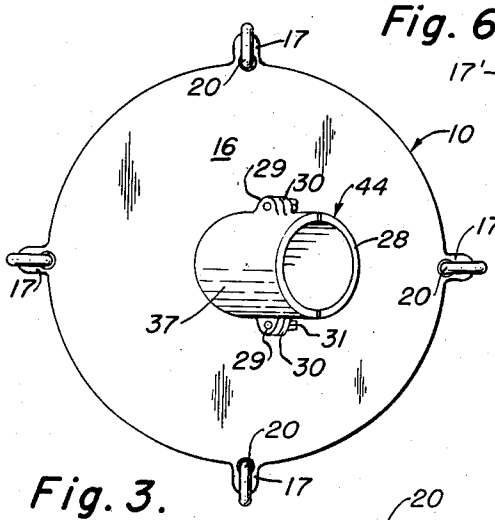


Fig. 3.

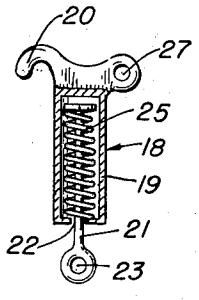


Fig. 4.

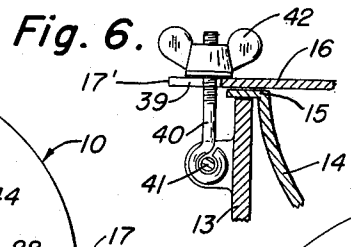


Fig. 6.

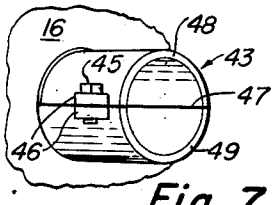


Fig. 7.

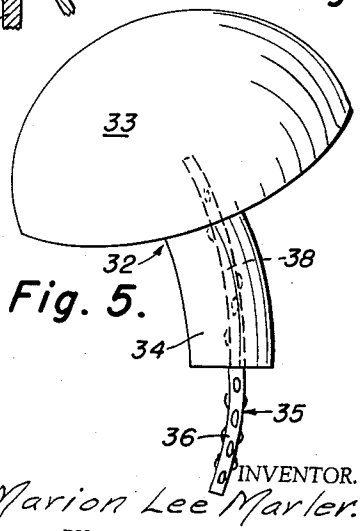


Fig. 5.

INVENTOR.

Marion Lee Marler.

BY Victor J. Evans & Co.

ATTORNEYS

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MEANS FOR MOLDING ARTICLES

Marion Lee Marler, 188 White Ave., Chico, Calif.

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1 Claim. (Cl. 25—118)

This invention relates to the molding of articles such as ornamental articles made of concrete or the like.

The object of the invention is to provide a means for molding ornamental articles such as articles resembling toad stools, mushrooms or the like, and wherein such articles can be conveniently molded or formed from suiable material such as concrete and wherein the completed article will have a one piece construction.

Another object of the invention is to provide apparatus wherein ornamental articles such as articles resembling toad stools or mushrooms can be conveniently and readily molded from concrete or the like, and wherein the completed article has a rod extending therefrom which is adapted to be embedded in the ground so as to provide a convenient support for the mushroom shaped article, as for example when such an article is being used on a lawn, yard or the like.

Still another object is to provide a molding apparatus which is rugged in structure and foolproof in use and which is economical to manufacture and efficient to operate.

These and other objects of the invention will become apparent from a reading of the following specification and claim, taken with the accompanying drawings, wherein like parts are referred to and indicated by like reference characters and wherein:

FIGURE 1 is a vertical sectional view taken through the mold of the present invention.

FIGURE 2 is a side elevational view, with parts disassembled or separated.

FIGURE 3 is a plan view of a mold.

FIGURE 4 is a longitudinal sectional view taken through one of the fasteners.

FIGURE 5 is an elevational view showing the completed article which may be made to resemble a toad stool.

FIGURE 6 is a fragmentary sectional view illustrating a modification.

FIGURE 7 is a plan view of a further modification.

Referring in detail to the drawings, and more particularly to FIGURES 1 through 5 of the drawings, the numeral 10 indicates a mold which includes a stand that is indicated generally by the numeral 11, and the stand 11 comprises a horizontaly disposed lower circular base or ring 12, and a plurality of vertically disposed spaced parallel legs 13 have their lower ends affixed as by welding to the base 12.

The numeral 14 indicates a bowl or semi-spherical hollow casting which is provided with an upper outer circular flange 15 that engages the upper ends of the legs 13.

The numeral 16 indicates a plate which is adapted to be arranged above the bowl or casing 14, and the plate 16 is provided with a plurality of spaced apart lugs 17 adjacent its outer periphery. Fasteners 18 are provided, FIGURE 4, and the fasteners 18 may include a hollow housing 19 which has a hook 20 thereon for engaging a lug 17, and one end of the housing 19 is provided with an opening or aperture 22 through which extends a movable bolt or stud 21, and an eye on the outer end of the bolt 21 is pivotally connected to an ear 24 on a leg 13 by means of a pivot pin 26. A coil spring 25 is circumposed on the bolt 21, and the coil spring 25 is positioned in the housing 19. Each fastener 18 is further provided with an apertured portion 27.

The numeral 28 indicates a first section of generally semi-circular shape in cross-section, and the section 28 has one end secured to or formed integral with the plate 16. The numeral 37 indicates an arcuate or semi-circular section for coaction with the section 28, and the sections 28 and 37 are releasably connected together by means of securing elements such as the cap screws 31 which engage registering apertured ears or lugs 29 and 30 on the sections 37 and 28.

The numeral 32 indicates the completed article which may be made to resemble an ornamental figure such as a toad stool, and the toad stool 32 may be made of a suitable material such as concrete and has a one piece construction and is especially suitable for use as a decorative piece on lawns, patios, yards or the like. The completed toad stool 32 has a semi-spherical body portion 33 and a depending stem 34 of reduced size, and the numeral 35 indicates a rod which has a portion 38 embedded in the stem 34 and body portion 33, and the numeral 36 indicates a projecting portion of the rod 35 which extends beyond the lower end of the stem 34. The rod 35 not only functions to help reinforce the concrete toad stool, but in addition the projecting portion 36 provides or defines an anchor which can be embedded in the ground to provide a means for supporting the toad stool 32 on the ground.

Referring to FIGURE 6 of the drawings there is illustrated a modified fastener which is adapted to be used instead of the fastener 18 of FIGURE 4, and the fastener of FIGURE 6 is shown to comprise an eye bolt or stud 40 which has its lower end pivotally connected as at 41 to a projection on a leg 13. The numeral 16′ indicates a plate which has spaced apart lugs 17′ which are provided with slots 39 therein, and these slots 39 are adapted to receive the bolts 40 whereby a wing nut or securing element 42 can be tightened in order to maintain the parts in the position of FIGURE 6.

Referring now to FIGURE 7 of the drawings, the numeral 43 indicates a slightly modified stem mold which is slightly different from the stem mold 44 of FIGURES 1, 2 and 3, and the stem mold 43 includes separable sections 48 and 49 that are releasably connected together by means of securing elements 45 which engage apertures or lugs 46, and the numeral 47 indicates the junction between the sections 48 and 49.

From the foregoing, it is apparent that there has been provided a method of and means for molding articles such as the ornamental toad stool 32. The article may be molded of a suitable material such as cement or concrete. While the present invention has been illustrated for use in molding a toad stool such as the toad stool 32, it is to be understood that the apparatus and method of the present invention is applicable to molding other types of articles in addition to toad stools. However, when a toad stool such as the toad stool 32 is to be formed or molded, the parts are adapted to be arranged as for example as shown in FIGURE 1 wherein the concrete is poured into the semi-spherical casing or bowl 14 and then the concrete is poured into the portion 44 so that the body portion 33 and stem 34 will be formed and a rod such as the rod 35 is adapted to be positioned in the cement or concrete. After the concrete hardens or sets, the mold can be disassembled and the article 32 can be removed and inverted or moved from the position shown in FIGURE 1 to the position such as that shown in FIGURE 5 whereby the completed article will resemble an actual toad stool, mushroom or the like. Thus, the completed article 32 includes the rounded or semi-spherical body portion 33, the stem 34 of reduced size, and the portion 36 of the rod 35 which depends from the lower end of the stem 34. Due to the provision of the projecting portion 36 of the

rod 35, the projecting portion can be readily embedded or stuck in the ground in order to provide a convenient support for the article 32. In addition, the rod 35 is adapted to be made of reinforced steel or the like so that this rod will serve to strengthen or reinforce the entire unit or article 32.

The plate 16 is adapted to be held in place by means of the fasteners 18, and the fasteners 18 are pivotally connected as at 26 to the projections 24 on the legs 13, and these fasteners 18 include hooks 20 which engage the lugs 17 on the outer periphery of the plate 16. The sections 37 and 28 are held together by means of the securing elements or cap screws 31 so that by removing the cap screws 31, the sections 37 and 28 can be separated.

Instead of using the fasteners 18, the eye bolts 40 can be used and these eye bolts 40 are pivotally connected as at 41 to the projections on the legs 13 as shown in FIGURE 6. These bolts are adapted to engage the slots 39 in the lugs 17', and wing nuts 42 are adapted to be threaded on the bolts 40 for maintaining the parts in their proper assembled position.

In the modification of FIGURE 7 the stem mold portion 43 includes a section 48 and a section 49 which are held together by means of the securing elements 45, and the section 49 may be secured to or formed integral with the plate 16, while the section 48 may be made as a separate piece so that the section 48 functions in the same manner as the previously described section 37. However, the junction 47 of FIGURE 7 is arranged at right angles as compared to the junction between the sections 37 and 28.

The parts can be made of any suitable material and in different shapes or sizes.

The hold down fasteners may be constructed as shown in FIGURE 4 or else they may consist of the eye bolt 40 with the wing nuts 42. The reinforcing bar may have an outer portion which is straight or else the outer projecting portion of the bar 35 may be curved or shaped arcuately. The two halves or sections 37 and 28, when assembled form the stem portion 34 of the toad stool. The disc or plate 16 when attached, forms a support for the underside of the body portion 33 of the toad stool. The bar 35 reinforces the stem 34 and serves to hold the toad stool upright when pushed into the ground so that the portion 36 functions as an anchor.

Thus, it will be seen that there has been provided a means for forming toad stools in one piece with concrete or other material as for example when such articles are to be used for ornamental purposes. In use, the bowl or casing 14 is first filled with concrete and then the sections 37 and 28 are connected together by means of the cap screws 31. Next, the plate 16 is placed on top of the bowl 14 and the hooks 20 are arranged in engagement with the lugs 17, and next the stem 44 is filled with concrete. Then, the reinforcing bar 35 is positioned in the concrete and the concrete is permitted to set until it is hardened.

When removing the toad stool out of the form after it hardens, the set screws 31 are first removed and then the section or part 37 is removed and the hold down hooks or fasteners 18 are disconnected from the lugs 17 so that the plate 16 can be lifted off. Before lifting off the plate 16, the section 37 is disconnected from the section 28 so as to increase the size of the central opening 50 in the plate 16 which facilitate the removal of the plate and section 28 from the completed toad stool. The finished or hardened toad stool can be lifted or removed from the casing 14 and positioned as shown in FIGURE 5 so that it will provide a highly decorative and ornamental article. The stem 34 can either be made straight or arcuate as desired.

Minor changes in shape, size and rearrangement of details coming within the field of invention claimed may be resorted to in actual practice, if desired.

What is claimed is:

A mold comprising a stand including a base, a plurality of vertically disposed parallel legs arranged in a circle and having their lower ends affixed to said base, a hollow semi-spherical casing having a flange about its edge for supporting said casing upon said legs, a plate for overlying said casing, said plate being formed with a central opening and spaced lugs about its periphery, a tubular device disposed adjacent said plate and having one end in registry with said opening, said device comprising mating sections each of semi-circular form in cross-section and arcuately curved along its longitudinal axis with one of said sections fixedly secured to said plate and the other of said sections removably attached to said one section, and clamps anchored on said legs and engaging said lugs of said plate.

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