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3,438,839

ARTIFICIAL TOPIARY FORMS AND METHOD

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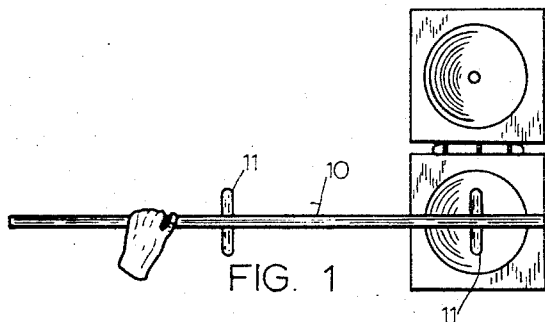


FIG. 1

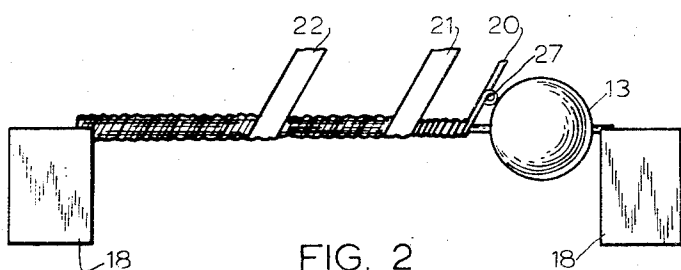


FIG. 2

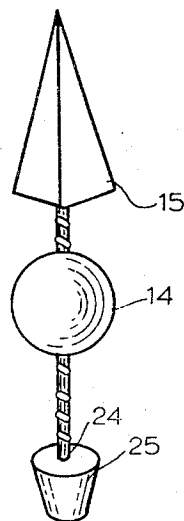


FIG. 3

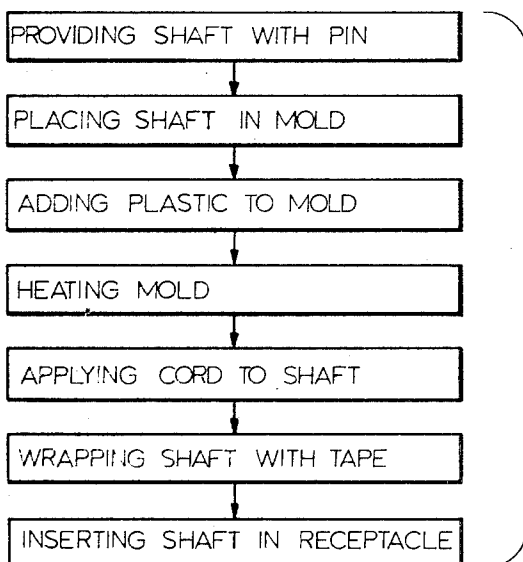


FIG. 5

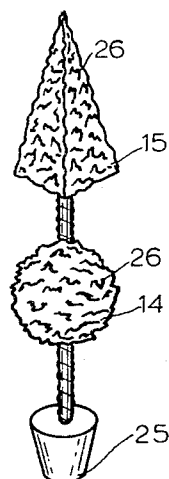


FIG. 4

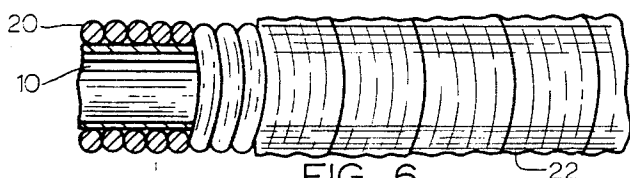


FIG. 6

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ARTIFICIAL TOPIARY FORMS AND METHOD
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4 Claims

ABSTRACT OF THE DISCLOSURE

An artificial topiary form utilizes a lightweight tube having one or more pins extending out of the tube and surrounding each such pin and encompassing portions of the tube, a plastic foam form such as a sphere, prism, cone or the like with those remaining portions of the tube being wrapped with a thin tape covered cord to simulate a rough, bark, like texture.

Topiaries have been made for many years by florists and decorators; however, the variety of shapes and sizes thereof have been greatly limited due to the archaic systems of making the same. These topiaries are generally formed from Styrofoam balls which are attached to a broom stick or dowel pin by either drilling a hole there-through or splitting the shape and then gluing it back together. The proper placement of the Styrofoam upon a stick is very difficult for Styrofoam has a tendency to crack and not retain a tight fitting around the stick. After the Styrofoam has been secured thereon, foliage of permanent or perishable types are attached thereto. The dowel or stick is usually painted or textured in some manner to give it an attractive finish. It can be easily seen that the cost, time consumed, and difficulty of making these basic forms have greatly limited their use in floral applications. Therefore, an object of this invention is to provide artificial topiary forms which may be manufactured economically and which are aesthetically pleasing in appearance.

Another object of this invention is to provide an artificial topiary form which has an infinite number of shapes and spacings.

A further object of this invention is to provide a method for making topiary forms which are variable in design and which are durable.

A still further object of this invention is to provide artificial topiary forms which have shapes selectively spaced along the length of a covered and textured shaft.

Other objects and advantages of this invention will become apparent when the following detailed description is read in conjunction with the appended drawings, specifications and claims. Preferred embodiments of this invention will now be described with reference to the accompanying drawings, in which:

FIGURE 1 is a view showing a portion of the shaft being received by the mold;

FIGURE 2 shows the various wrappings which are applied to the shaft;

FIGURE 3 is a perspective showing a sample of the urethane forms which may be molded on the shaft and the shaft being received by a receptacle;

FIGURE 4 is a view of a completed artificial topiary form having artificial foliage placed upon the surfaces of the urethane moldings;

FIGURE 5 is a block diagram showing the various steps used to carry out the method of constructing artificial topiary forms; and

FIGURE 6 is a fragmentary sectional view of the shaft showing the textured pattern thereof.

One embodiment of this invention contemplates using an aluminum shaft or tube which has at least one steel pin inserted through the same and perpendicular or askew to the axis thereof. Each combination of tubing and pin provides a skeleton or frame about which a urethane form is to be molded. The pin stabilizes the form and does not allow it to turn or slip on the tubing and also determines the proper location of the urethane forms on the tubing. In the most frequent application of the invention a plurality of spaced pins receive a plurality of spaced forms.

To mold a urethane form on the tubing, the tubing and pin are inserted in mating cavity molds which are preheated to 110° F. to 130° F. The molds then receive a predetermined amount of monomeric urethane. The urethane also contains therein a cross-linking catalyst which causes the urethane to polymerize in approximately four minutes upon the heating thereof. The plastic expands to completely fill the cavity in the molds and after remaining in the molds for the desired period of time, a form which results therefrom is removed and is allowed to cure at 75° F. or about for approximately 24 hours. The 24-hour curing period allows for a substantially complete polymerization of the urethane and gives the form the proper working texture. The urethane and the instructions for polymerizing the same may be procured from The Flexible Products Company, 1225 Industrial Park Drive, Marietta, Ga. The mold may be steam or electrically heated and is provided with a temperature controller for maintaining the same at a relatively constant and predetermined temperature. A temperature controller or thermoswitch unit of this type may be purchased from Fenwal, Inc., of Ashland, Mass.

After having molded the urethane forms at spaced locations along the length of the tube or shaft corresponding to the pin locations, the shaft with the forms molded thereon is placed on a turning machine similar to a lathe whereupon a first layer of sisal cord which may also be nylon, hemp or the like is wrapped therearound. The cord lends to the tubing a rough and ruddy texture which is similar in appearance to that of the bark of a boxwood bush. A first layer of thin, pliable plastic tape is helically wound thereon to cover up and smooth over any pendent fibers while preserving the surface texture of the cord. A second thin, pliable plastic tape is also helically wound on the first plastic layer covering the cord to provide the same with a finished exterior which retains the cord texture and is aesthetically pleasing and which may be painted to more nearly resemble the natural coloration of the trunk of a bush. The two tapes are both preferably very thin and pliable so that the textured surface pattern effected by the cord will be preserved. The two layers of tape are wrapped very tightly around the cord and tube to firmly secure the cord thereon and the tapes may have an adhesive coated on one surface thereof to aid in the placement of the cord. It is also contemplated that the cord may be directly glued to the tube without the benefit of the tapes. In either method the desired texture of the cord may be preserved.

To complete the artificial topiaries, foliage which may be natural or artificial, the artificial generally being made from polyethylene or the like, may be attached to the plastic forms by either inserting the stems of the foliage therein or by using greening or fern pins. One end of the tubing of the topiary form is then inserted into a receptacle or container and is firmly held therein in a vertical position by closely packed dirt or by plaster of paris, cement or the like.

The invention is illustrated in connection with the accompanying drawings in which the figures are illustrative of a preferred embodiment of the invention.

A tube 10 which is preferably made from any lightweight metal is provided with at least one pin 11 (there are two pins 11 shown in FIGURE 1) which is inserted through tube 10 and rigidly resides therein. Pin 11 is aligned askewly with the axis of tube 10 so that it may anchor form 13 or the like on tube 10. Form 13 is molded polyurethane or the like and may be of most any geometric shape, such as spheres, prisms, cones or regular sided solids including hexahedrons and icosahedrons. It is to be noted that the forms are molded in situ on shaft 10, that is, molded in place and not preformed and attached thereto. Any combination of shaped forms may be used including sphere 14 and right rectangular pyramid 15 as shown in FIGURE 3. With form 13 firmly in place on tube 10, the structure is placed on blocks 18 thereby adapting it for rotation by any convenient means (not shown) such as a lathe. Tubing 10 is first helically wrapped with cord 20 which gives tube 10 a thick, rough appearance. The surface texture may be varied by spreading the loops of cord 20 so that they do not touch as shown in FIGURE 3. The thickness of cord 20 may be increased or decreased along the length thereof thereby providing tube 10 with an undulating pattern; also, knots 27 may be tied in cord 20 thereby providing tube 10 with a lumpy and broken surface. Since cords of this type generally have pendent fibers which are unsightly, cord 20 which has been wrapped around tube 10 is covered by preferably a thin, plastic, pliable tape 21. Tape 21 also serves to position cord 20 on shaft 10 for the loops of the helical winding may separate as well as touching. Tape 22, also a thin, pliable tape, is the finished layer and is wound on tape 21. The surface characteristic of tape 22 may be varied in design and color to resemble the natural coloration and surface texture of a bush's trunk. With the structure substantially complete, free end 24 of shaft 10 is embedded in a receptacle 25 as shown in FIGURE 3 and is held therein in a vertical position by sand, concrete or the like. Foliage 26 is added to forms 14 and 15 thereby resulting in the completed topiary form as shown in FIGURE 4. Foliage 26 is held thereon either by having a portion thereof inserted into the polyurethane or by fern pins (not shown). Since the foliage may be easily removed, the forms are adaptable to receive either artificial or natural foliage or a combination of both. When the natural foliage turns brown, it may be replaced with fresh foliage.

Many different embodiments of this invention may be made without departing from the spirit and scope thereof. Therefore, it is to be understood that the invention is not to be limited to the specific embodiment shown and described herein, except as defined in the appended claims.

Having described the invention, we claim:

1. An artificial topiary form comprising a base, an elongated lightweight smooth surfaced tubular shaft secured at one end to and vertically supported by said base, a pin secured to said shaft in a selected portion thereof and extending outwardly from and askew of the axis thereof, a lightweight plastic moldable foliage receiving form in the nature of a sphere, prism, cone, regular sided solid or the like, said form being molded in situ about

the portion of said shaft containing said pin forming an integral structure therewith and encompassing said pin and selected portions of said shaft on either side of said pin while leaving remaining portions uncovered; a flexible cord in the nature of sisal, hemp or the like wound about said remaining portions of said shaft to provide a corresponding thick, rough texture thereon; pliable thin tape means wrapped around the said cord and being arranged to preserve said texture while securely positioning said cord on said shaft.

2. An artificial topiary form as claimed in claim 1 wherein said tape means comprises at least two layers of pliable thin plastic tape arranged to preserve said texture through the outermost of such layers.

3. An artificial topiary form as claimed in claim 1 including a plurality of said pins and corresponding forms molded in situ thereon and selectively spaced along the length of said shaft and wherein said cord and tape means are wound on all said remaining portions between said forms.

4. A method of constructing artificial topiary forms comprising the steps of:

- (a) affixing at least one pin to an elongated lightweight smooth surfaced, straight shaft, and positioning said pin askew with the axis of said shaft;
- (b) placing said pin and selected portions of said shaft on either side of said pin in a cavity mold of a predetermined shape in the nature of a sphere, prism, cone, regular sided solid or the like;
- (c) adding to said mold a foamable monomeric plastic;
- (d) heating said mold whereby said monomeric plastic polymerizes and foamably expands to assume said predetermined shape of said mold and encompasses said pin and said portions of said shaft received by said mold to provide an integral structure therewith;
- (e) winding a flexible cord in the nature of sisal, hemp or the like about the remaining portions of said elongated shaft to cover and provide a thick, rough texture thereon;
- (f) wrapping said remaining portions of said shaft and the said cord wound thereon with a thin pliable base tape arranged to secure said cord on said shaft while preserving said cord texture through said base tape;
- (g) wrapping said base tape with a second thin pliable surface tape arranged to preserve said cord texture through said base and surface tapes; and
- (h) securing a selected end of said shaft to a base receptacle therefor.

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156—171; 264—275