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(54) **MULTIPLE STEM ARTIFICIAL HOLIDAY TREE WITH SHELVES**

Related U.S. Application Data

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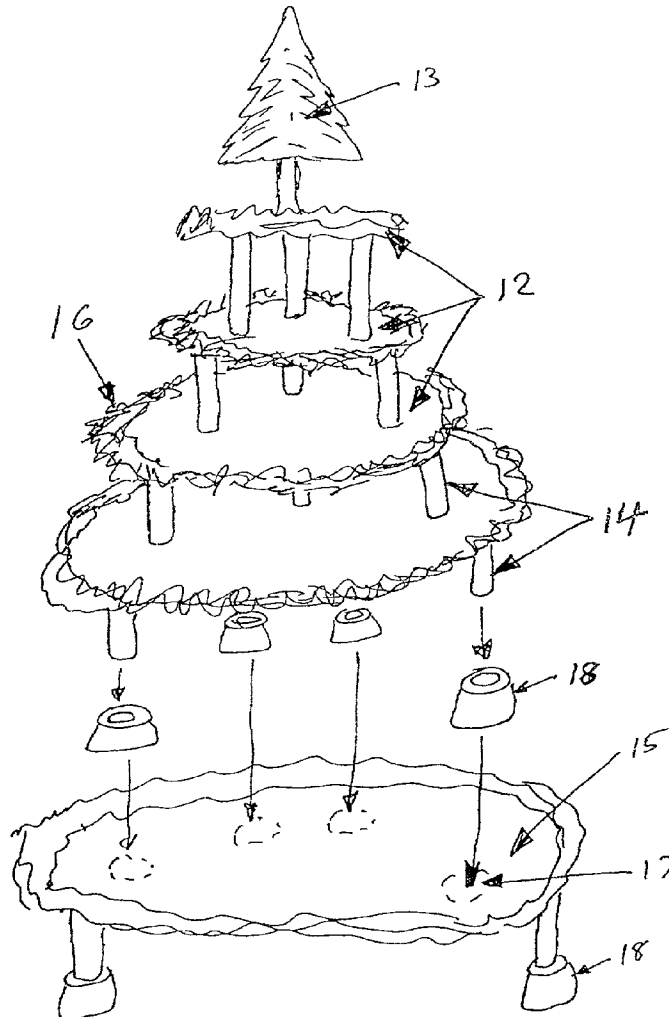
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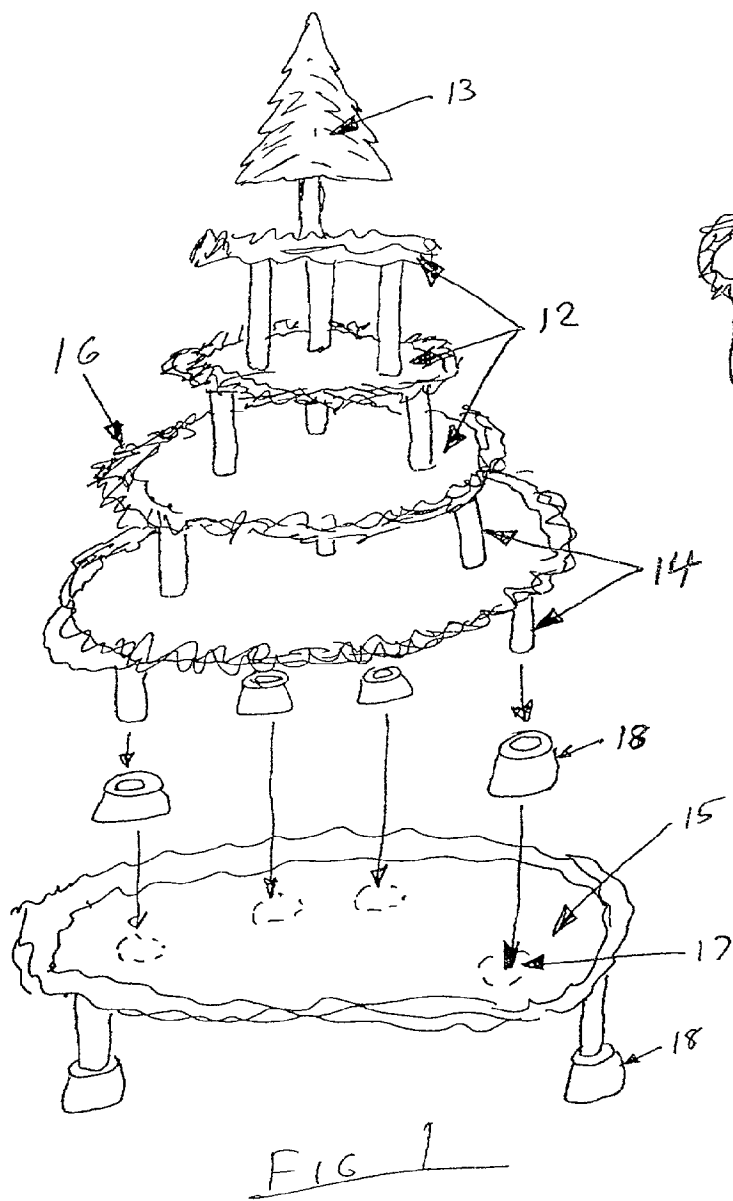
(57) **ABSTRACT**

An artificial Christmas tree with shelving. More particularly, the invention relates to an artificial Christmas tree including a number of shelves separated and supported by multiple legs.

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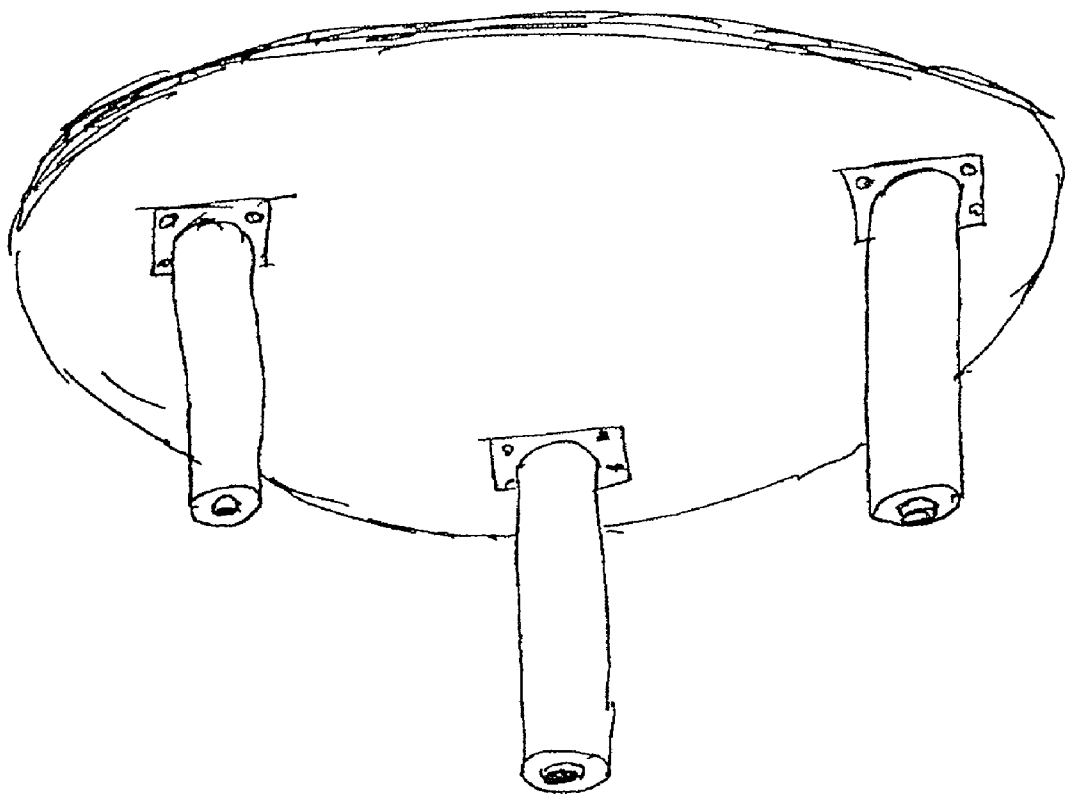


FIG 3

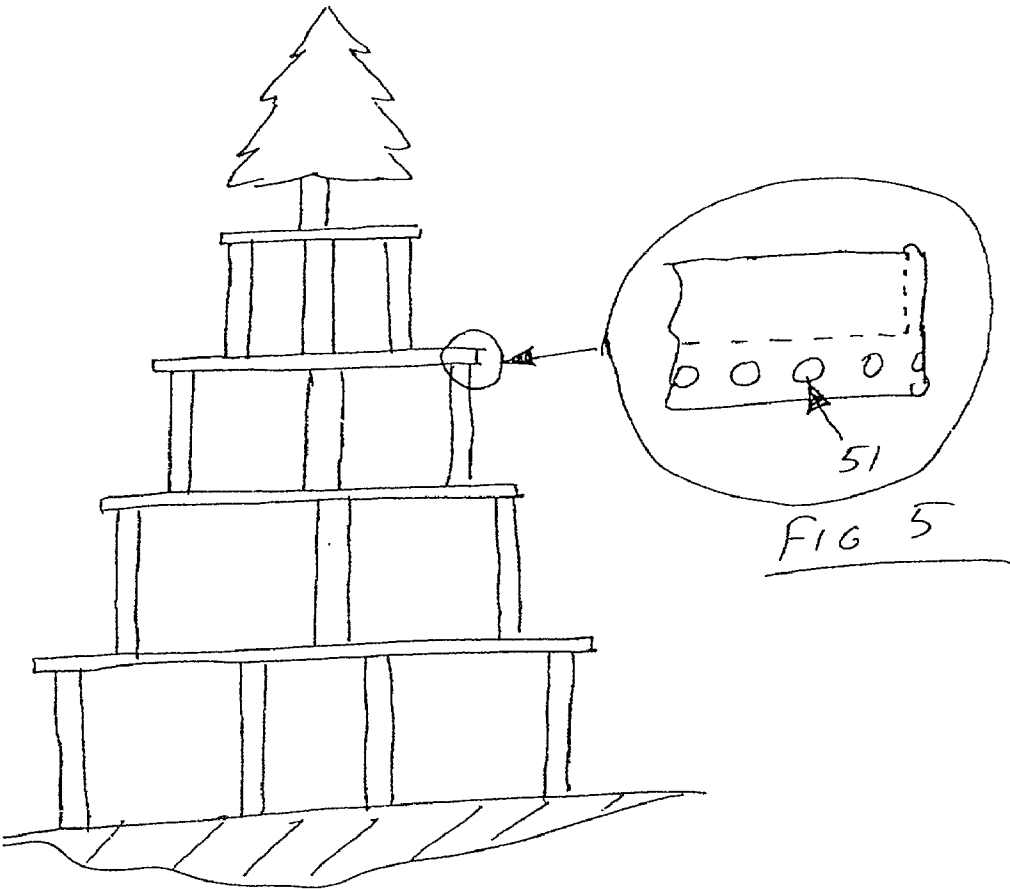


FIG 4

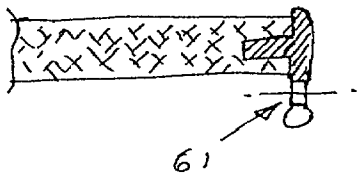


FIG 6

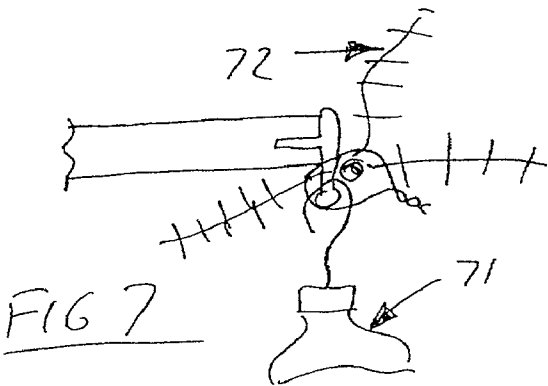


FIG 7

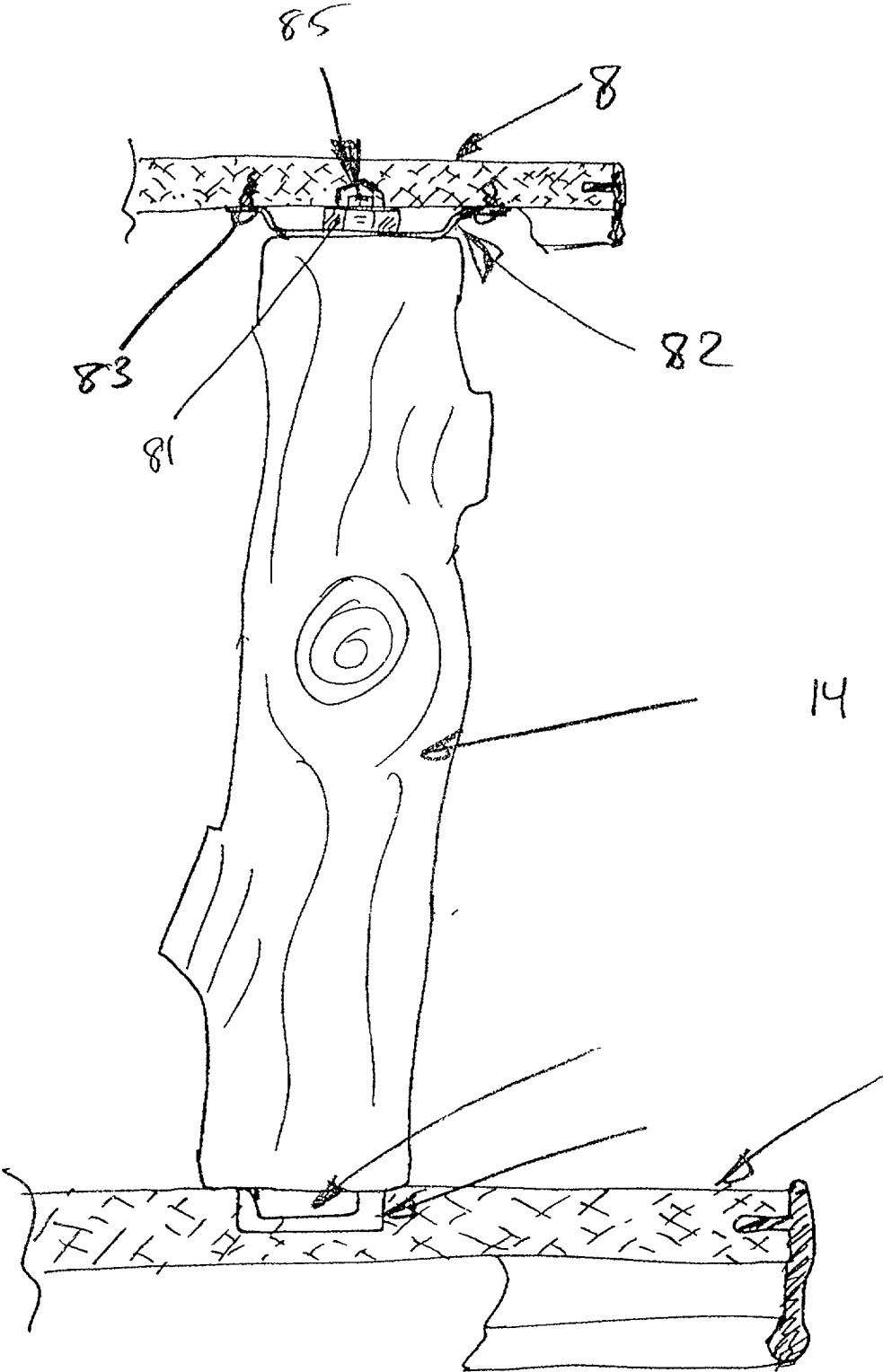


FIG 8

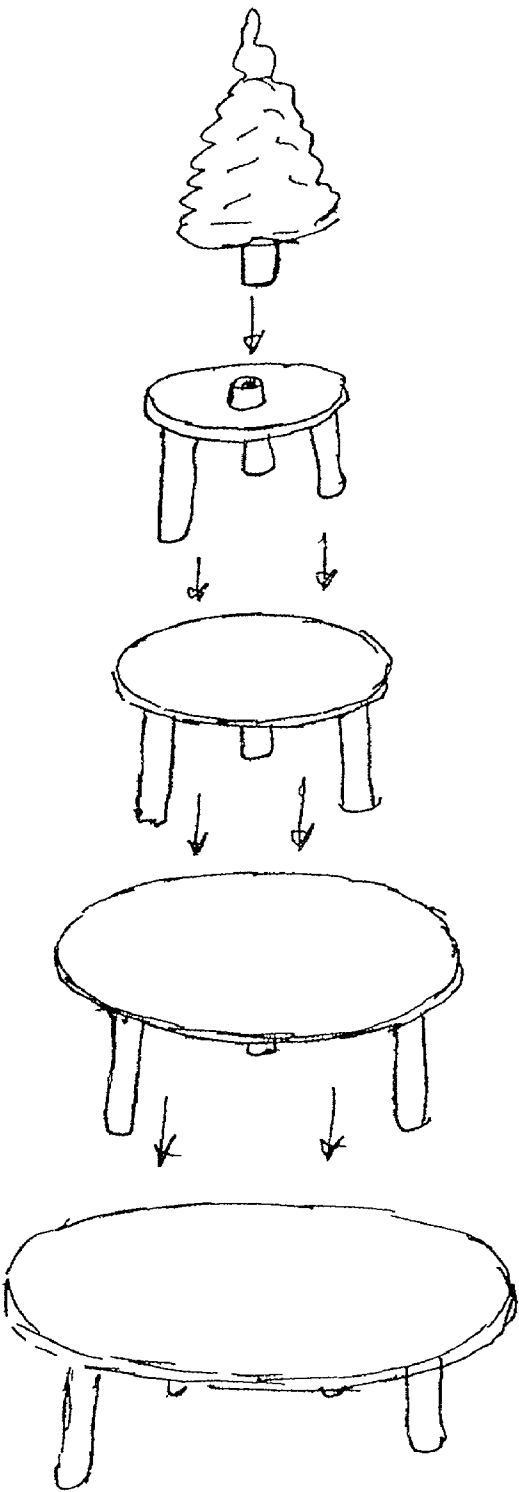


FIG 9

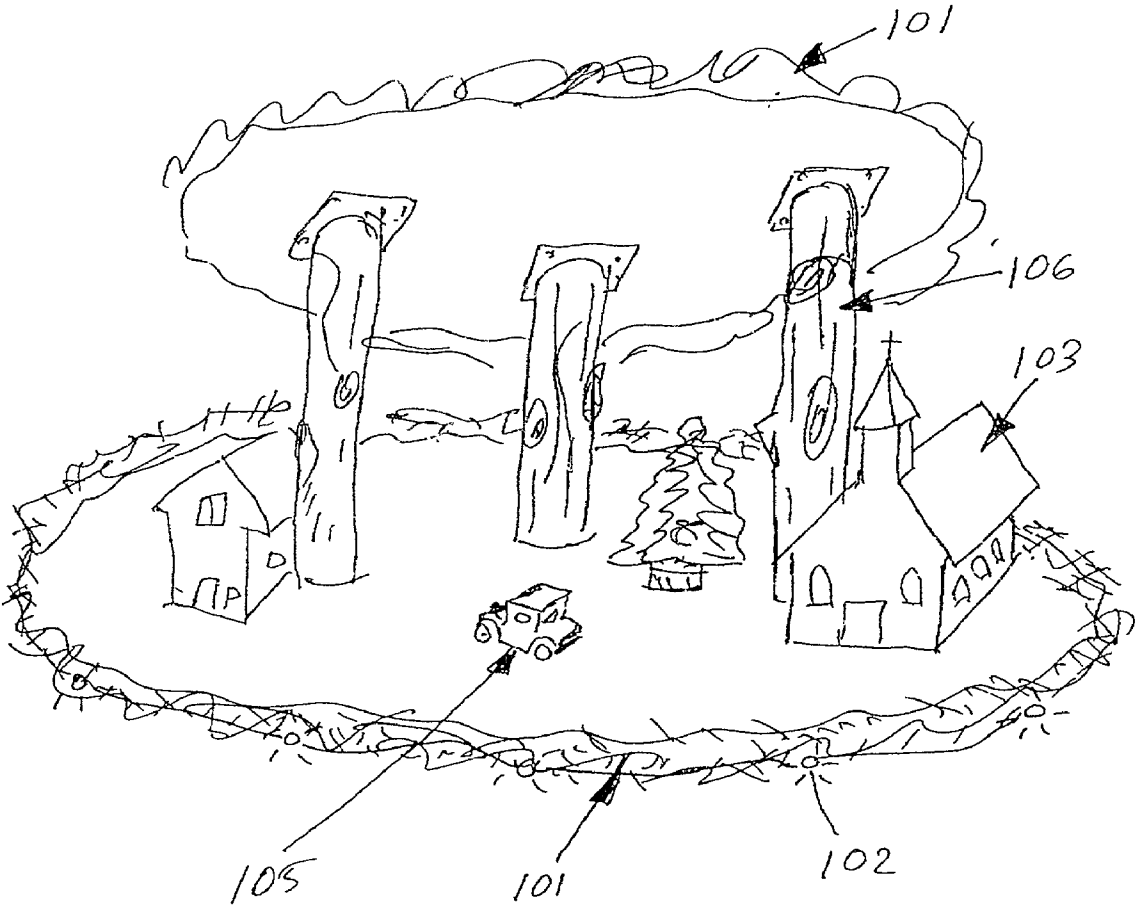


FIG 10

MULTIPLE STEM ARTIFICIAL HOLIDAY TREE WITH SHELVES

BACKGROUND OF THE INVENTION

[0001] 1. Technical Field

[0002] The invention pertains to artificial trees, and more specifically to artificial evergreen or pine trees. More particularly, the invention relates to artificial Christmas or holiday trees designed to include shelves for use in displaying ornamental items.

[0003] 2. Background Information

[0004] The use of evergreen or pine trees, often also referred to as Christmas trees, to celebrate the Christmas holiday is widely practiced. More specifically, it has become common practice over many decades to hang decorations and candles or more recently lights, upon the tree branches. In more recent times, artificial trees have become very popular including over the past couple of years artificial trees with lights and/or ornaments permanently affixed therein.

[0005] Lots of other decorations have also become popular in association with the Christmas holidays. These include displaying collectibles including miniature houses, a collection of which are sometimes referred to as a Christmas village. In recent years it has become very popular to display these under the Christmas tree, on the top surface or shelves of a popular furniture item, on the fireplace mantle, and so on.

[0006] In addition to miniature houses and the like, other decorations and collectibles are also often displayed on shelves, mantles, and/or under the Christmas tree including: presents, nativity sets, villages (with streets, cars, miniature trees, paths, ice rinks, and other life like miniature models), model railroad layouts including electric or ornamental trains, miniature forest, party food, books, tree skirts, tree toppers, and toys. All of these shall be collectively referred to as "decorations" hereinafter.

[0007] U.S. Pat. No. D414,056 shows an ornamental design for one type of a special Christmas shelf designed specifically for the display of decorations on shelves. This device retains the precise ornamental design of a natural tree with a single stem. A single stem design often presents several difficulties including difficulty in firmly mounting each shelf to the single main stem, instability or rocking of the shelves and particularly when significant weight is placed upon the shelves, and sagging of the shelves over time around the outer periphery due to the weight of the collectibles and/or persons viewing the collectibles leaning against or pulling on that outer periphery. The single large square stem of the '056 patent is also difficult to fit into the ornamental layout of certain collectibles including miniature houses.

[0008] Display stands in the form of Christmas trees wherein shelves are mounted upon a central column are known as shown in U.S. Pat. Nos. 1,577,207 and 3,674,612. However, such devices, while in the general shape of a Christmas tree, do not employ needled branches, and for most people would not be a proper substitute for a more traditional Christmas tree.

[0009] It is known to incorporate a shelf into an artificial Christmas tree for display purposes as shown in U.S. Pat. No. 5,085,901. In this patent, a shelf is disclosed at mid-height whereby houses, candy, packages and the like may be mounted on the shelf and are readily visible. The practice of this invention requires a single gap not consistent with the remainder of the tree. The tree configuration immediately above the shelf must be devoid of branches at only one level. The concept of this patent limits the display area.

SUMMARY OF THE INVENTION

[0010] It is desirable to create or provide a shelf system embodied as a tree such as a Christmas tree or tree for other holidays, and more specifically to provide a solid, stable, rugged support that will firmly hold heavy and valuable collectables, be easy to put up, be easy to take down, use low cost standard technology with available standard hardware and/or manufacturing methods, be able to adjust the size/height, be easy to display things on or hang ornaments and lights, and be easy to store.

[0011] An optional object of the preferred embodiment is for the support structure to blend into the layout of miniature house arrangements and other miniature arrangements making the tree seem like a forest with tree trunks supporting a forest canopy which is really the next shelf up.

[0012] These and other objectives and advantages are obtained by the improved multiple stem artificial Christmas tree with shelves of the present invention, the general nature of which may be stated as an artificial tree including a first shelf of a generally planar design having a top surface and a bottom surface with an edge therebetween, a second shelf of a generally planar design having a top surface and a bottom surface with an edge therebetween, and a plurality of legs extending from the bottom surface of the second shelf and resting against the top surface of first shelf to support the second shelf on the first shelf.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The preferred embodiment of the invention, illustrative of the best mode in which applicant has contemplated applying the principles, is set forth in the following description and is shown in the drawings and is particularly and distinctly pointed out and set forth in the appended claims.

[0014] **FIG. 1** is a perspective view of a first embodiment of the Christmas tree shelving system of the present invention where a set of shelves is separated or disassembled;

[0015] **FIG. 2** shows a different tree topper for use on the top shelf of the present invention replacing the artificial tree top shown in **FIG. 1**;

[0016] **FIG. 3** is a bottom side view of one of the shelves of the present invention;

[0017] **FIG. 4** is a front elevational view of the Christmas tree shelving system of the invention, with the garland hanging on the shelf edge removed for purpose of illustration;

[0018] **FIG. 5** is an enlarged section view of one embodiment of the shelf edge taken from **FIG. 4** showing a plurality of holes embodied as a perforated flexible extrusion for attaching ornaments, lights, and the like;

[0019] FIG. 6 is an enlarged cross section view of the shelf edge of FIG. 5 showing the perforated flexible extrusion for attaching ornaments, lights, and the like with a connector therein;

[0020] FIG. 7 is a similar view to FIG. 6 showing various items attached to the edge strip including an ornament and garland;

[0021] FIG. 8 is a detailed partial sectional view of one of the legs and its attachment to adjacent shelves;

[0022] FIG. 9 is an exploded view showing four shelves with legs and a tree top with arrows showing how they set together; and

[0023] FIG. 10 shows a typical decorated shelf embodied as a round or oval shelf with a plurality of legs connecting this shelf to another shelf.

[0024] Similar numerals refer to similar parts throughout the drawings.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0025] The present invention is a multiple stem artificial tree 10 with shelves 12 incorporated herein. The tree 10 may be a Christmas tree for displaying Christmas nick-nacks as described below, decorative tree for displaying collectibles of any kind, or holiday tree such as for displaying nick-nacks for any holiday such as Easter, St. Patricks Day, Valentines Day, Passover, Hanukkah, Independence Day, Halloween, Thanksgiving Day or the like.

[0026] Basically, the invention is a tree 10 that employs a system where multiple legs 14 separate shelves 12 that are stacked on top of each other. The top shelf may stand alone as the top-most piece or it allows but does not require an artificial tree top that more accurately depicts a finished tree top (the conical-like point of an evergreen or other tree such as 13 in FIG. 1) or typical tree top decorations such as an angel or star such as 23 in FIG. 2. The legs may be affixed at both ends to the respective shelves, or only at one end while merely resting against the other end as described below in more detail. At the ends the legs are affixed, standard leg mounting hardware is used to mount the substantially vertical legs 14 to the shelves 12, that is typically at least to the underside of the shelves and where affixed at both ends to the underside and top side of the shelves. In design, the edge of the shelf is designed to allow artificial pine tree garland, ornaments, lights and other items to be attached.

[0027] In more detail and referring to FIGS. 1 and 2, the tree 10 includes a plurality of shelves 12 (in the embodiment shown five shelves 12A, 12B, 12C, 12D and 12E, but any number of shelves is contemplated) separated by a plurality of substantially vertical legs 14, the number of which may vary between shelves but is preferably at least two or three, and more likely three to six although any number of legs are contemplated so long as the number is at least two. In addition, on the bigger and typically lower shelves more legs may be used versus on the smaller and typically higher shelves.

[0028] In one embodiment (not shown), a base shelf sits on the floor thereby providing substantial stability and a flat shelf surface for display purposes. Alternatively in other

embodiments including those shown, base legs may be provided extending up from the floor to this base or lowermost shelf 12A.

[0029] All, some or none of the shelves may be permanently connected to the adjacent shelves. Alternatively, all, some or none of the shelves may be removably connected to the adjacent shelves. The embodiment in FIG. 1 shows a combination of permanent and removable connections; specifically, shelves 12B-12E are permanently connected to each other via the legs therebetween, while base shelf 12A is an adder shelf referenced as 15 where the legs of the shelf above it (shelf 12B) are only connected to the underside of the shelf above it (shelf 12B) rather than both the underside of the shelf above it (shelf 12B) and the base shelf 12A. In effect, the tree 10 may be used with or without the adder shelf thereby adjusting the number of shelves and height of the overall tree. It is contemplated that all of the shelves may be permanently connected as shelves 12B-12E are, that only some may be with one or more adder shelves, or that all of the shelves may merely sit on the adjacent shelf thereunder in a removable fashion.

[0030] Any number of shelves may be used to provide the height, size or appearance desired. For example, a one foot shelf (adder shelf 15 which may be of other sizes) may be added to the bottom of a tree, such as a 6'6" tree to make it a taller tree, such as a 7'6" tree. The system is thus very flexible.

[0031] To give the appearance of a typical evergreen or pine tree that is used as a Christmas tree, typically each shelf is larger than the one that sits on it substantially adding to the pyramid like stability of the structure. This is shown in the Figures. The shelves may each be of a round or oval design as shown in the Figures, or optionally may also include a flat face thereon for better positioning the tree against a wall or in a corner.

[0032] As noted above, the shelves are separated from one another using legs that are either removably mounted or securely affixed to the respective shelf that the legs set on and shelf the legs support. Specifically, legs 14 all of which may be identical molded legs are mounted to the bottom side of each shelf or to the top side or to both sides. Optionally detents 17 to position legs or fastening features may be used. FIG. 3 shows a bottom view of the 3 legs attached to a shelf.

[0033] FIG. 8 shows a typical leg 14. A fastener 81 fastens the leg 14 to a top bracket 82, and more specifically in the embodiment shown the fastener is a bolt or screw that is inserted through a hole in the bracket 82 and threaded into the end of the leg 14. The bracket 82 is mounted to the bottom of a shelf 84 (could be any shelf 12A-12E) using fasteners 83 such as screws or bolts. The leg may be removed by unscrewing from bracket. An optional detent 85 may be provided in the shelf to help to position the leg within the lower face of the shelf 84.

[0034] The bottom end of the leg may be similarly secured to the adjacent shelf, or alternatively may be removably affixed or merely rested against the adjacent shelf. In one embodiment as shown in FIG. 8, the bottom end of the leg includes a fitting 86 that is alignable and fits within a detent 87 in the top side of the adjacent shelf. In another embodiment, the leg merely ends and is set upon the top face of the adjacent shelf. In yet another embodiment as shown in FIG.

1 with reference to the adder shelf 12A, a non-skid bumper, glide or interface 18 may be used such that the bottom of the leg is insertable therein. This bumper 18 may also selectively add height if desired and in effect be a spacer.

[0035] Artificial pine garland 16 may typically be attached to the shelves, and it may alternatively include lights, ornaments, or the like therein. FIGS. 5 and 6 show one embodiment of shelf with a plurality of holes or perforations 51 therein such as by extrusion on an outer perimeter, periphery or edge. These perforations are used to attach garland, lights, other ornaments and the like, or a mixture thereof. In the preferred embodiment an edge molding 61 may be pressed into the perforations 51 on the shelf whereby a press tang 62 facilitates this fastening. FIG. 7 shows ornaments 71 and garland 72 attached to the shelf edge.

[0036] FIG. 10 is a drawing showing a typical decorated shelf. Garland 101, lights 102, power cords and other items may be attached to the edge. Miniature buildings 103, miniature trees 104, miniature automobiles, and many other items may be placed on the shelves.

[0037] In addition to adding artificial pine tree garland to the shelves to make the tree look more like a real tree the legs may be natural wood logs or be molded plastic made to look like natural logs. For quicker set up and take down an option is to use collapsible legs like on a card table or such.

[0038] It is also contemplated that quick set up may also be accomplished by having the electrical system incorporated. Each shelf could have a multi-plex outlet mounted. The garland would be pre-cut to length with light bulbs and twist ties. Once assembled each shelf could be independent electrically with one plug. Each shelf cord would follow, and be concealed by, the rear leg to a main multi-plex outlet. For take down and storage the user may only need to remove the collectables and ornaments, unplug electrical, remove the legs and stack the shelves in a compact space.

[0039] It is contemplated that the legs may be constructed of or by blow molding plastic, injection molding plastic, steel tubes, extrusion, wicker, wire, sheet metal, wood, particle board, actual tree branches, or the like. The shelves may be constructed of or by wire, wire frames, blow molding plastic, injection molding plastic, steel tubes, extrusion, wicker, woven basket material, foam sheets, sheet metal, plywood, particle board, plexiglass, or the like. The edge molding 61 may alternatively be weld clips, wire clips, pegboard clips, plastic clips, hooks, fasteners, twist ties, or any other method of affixing the garland or ornaments to the shelf.

[0040] In one embodiment, the plastic foam may be white that would give the appearance of a snow covered ground. The legs may be molded to appear as tree trunks, and/or be actual branches to give the appearance of tree trunks where by the garland encapsulated edge of the shelves give the appearance of tree tops above the tree trunks.

[0041] In another embodiment, the legs include passages therein through which wires may pass thereby functioning to hide the wires which is both aesthetically pleasing and safer. The shelves may include corresponding holes through which the wires pass. In legs designed to be or appear to be logs, this hole may have the appearance of a crack or crevice in the log such as a "raccoon hole".

[0042] In yet a further embodiment, the shelves include recesses that act as seats for the legs. This provides a designated spot for the legs to be placed thus better assuring proper assembly and a more secure seating of each shelf. The legs include passages that extend into the base of the leg and correspond with a passage extending out of the recess and through to the bottom of the shelf for wire passage.

[0043] Power strips or extension cords with one or more outlets may be incorporated into the tree 10 such as via the legs, the shelves, or both. In one example, a power strip is seated within a recess in the shelf so as to be substantially flush with the shelf surface.

[0044] It is also contemplated that the shelves not need to be stacked in a uniform or symmetrical fashion. The shelves for instance may be staggered, or a particular level may include more than one shelf. The distance between shelves need not be uniform.

[0045] As to storage, the legs may be readily removable via a snap fit, a threaded fit, or any other connections means. The legs may alternatively be hinged and thus fold or retract out of the way. It is also contemplated that the legs may be positioned such that the shelves may be flipped over and the smaller shelves may be stacked within the larger shelves.

[0046] It is even further contemplated that a base may be added beneath the tree whereby the base is an enclosed chamber which may have doors therein. This provides storage which may be desirable in a residential or more likely in a commercial setting.

[0047] Accordingly, the artificial tree is simplified, provides an effective, safe, inexpensive, and efficient device which achieves all the enumerated objectives, provides for eliminating difficulties encountered with prior devices, and solves problems and obtains new results in the art.

[0048] In the foregoing description, certain terms have been used for brevity, clearness and understanding; but no unnecessary limitations are to be implied therefrom beyond the requirement of the prior art, because such terms are used for descriptive purposes and are intended to be broadly construed.

[0049] Moreover, the description and illustration of the invention is by way of example, and the scope of the invention is not limited to the exact details shown or described.

[0050] Having now described the features, discoveries and principles of the invention, the manner in which the improved artificial tree is constructed and used, the characteristics of the construction, and the advantageous, new and useful results obtained; the new and useful structures, devices, elements, arrangements, parts and combinations, are set forth in the appended claims.

We claim:

1. An artificial tree comprising:

- a first shelf of a generally planar design having a top surface and a bottom surface with an edge therebetween;
- a second shelf of a generally planar design having a top surface and a bottom surface with an edge therebetween; and

a plurality of legs extending from the bottom surface of the second shelf and resting against the top surface of first shelf to support the second shelf on the first shelf.

2. The artificial tree of claim 1 wherein each edge includes a method for attaching at least one of decorations, ornaments and garland.

3. The artificial tree of claim 2 wherein the method of attaching decorations, ornaments and garland includes at least one of a hook, clip, adhesive, and fastener for receiving and holding the decorations, ornaments and garland.

4. The artificial tree of claim 3 further comprising at least one of decorations, ornaments and garland attached to the tree via the at least one of the hook, clip, adhesive, and fastener for receiving and holding the decorations, ornaments and garland.

5. The artificial tree of claim 1 wherein the shelves are one of circular or oval in shape.

6. The artificial tree of claim 5 wherein the distance across the top surface of the first shelf is greater than the distance across the top surface of the second shelf.

7. The artificial tree of claim 1 further comprising additional shelves each of a generally planar design having a top surface and a bottom surface with an edge therebetween, and including a plurality of legs extending from the bottom surface of each shelf and resting against the top surface of the adjacent shelf therebelow.

8. The artificial tree of claim 7 wherein the distance across the top surface of adjacent shelves diminishes as the shelves are greater distances from the first shelf which is the lowermost shelf.

9. The artificial tree of claim 1 wherein the plurality of legs extending from the bottom surface of the second shelf are affixed thereto, while in contact with the top surface of first shelf to support the second shelf on the first shelf.

10. The artificial tree of claim 1 wherein the plurality of legs extending from the bottom surface of the second shelf are affixed thereto as well as are affixed to the top surface of first shelf to connect the second shelf on the first shelf.

11. The artificial tree of claim 1 wherein the plurality of legs extending from the bottom surface of the second shelf

are affixed thereto, and are seated within a bumper on the top surface of first shelf to support the second shelf on the first shelf.

12. An artificial tree comprising:

a plurality of shelves each of a generally planar design having a top surface and a bottom surface with an edge therebetween; and

a plurality of legs extending from the bottom surface of each of the shelves.

13. The artificial tree of claim 12 wherein each edge includes a method for attaching at least one of decorations, ornaments and garland.

14. The artificial tree of claim 13 wherein the method of attaching decorations, ornaments and garland includes at least one of a hook, clip, adhesive, and fastener for receiving and holding the decorations, ornaments and garland.

15. The artificial tree of claim 13 further comprising at least one of garlands, lights, ornaments affixed to the edge.

16. The artificial tree of claim 12 wherein the shelves are one of circular or oval in shape.

17. The artificial tree of claim 16 wherein the distance across the top surface of the first shelf is greater than the distance across the top surface of the second shelf.

18. The artificial tree of claim 12 wherein the plurality of legs extending from the bottom surface of each shelf are affixed thereto, while in contact with one of the top surface of a shelf immediately below and a surface on which the tree is positioned.

19. The artificial tree of claim 12 wherein the plurality of legs extending from the bottom surface of each shelf are affixed thereto as well as are affixed to the top surface of a shelf immediately below if such shelf exists.

20. The artificial tree of claim 12 wherein the plurality of legs extending from the bottom surface of the second shelf are affixed thereto, and where a shelf exists immediately below are seated within a bumper on the top surface of such shelf positioned immediately below.

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