April 2, 1963 J. M. NESS 3,083,824

ARTIFICIAL TREE PACKAGE

Filed Jan. 12, 1961

Fig. 1

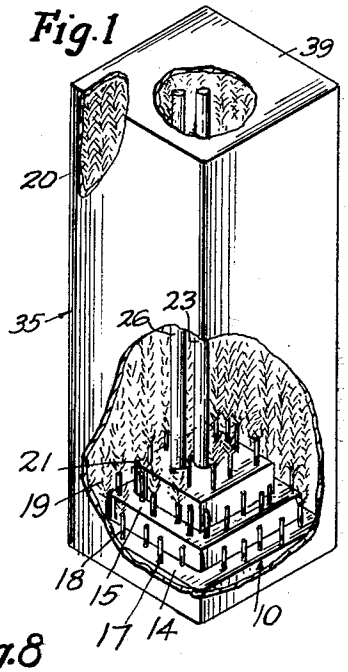


Fig. 3

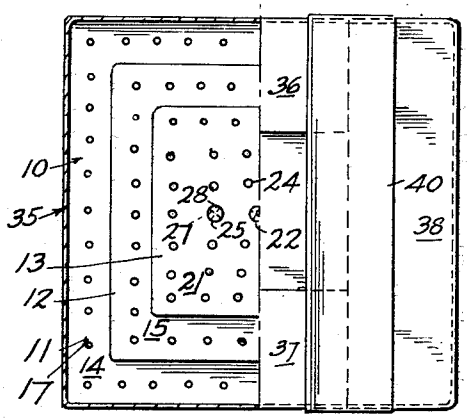


Fig. 2

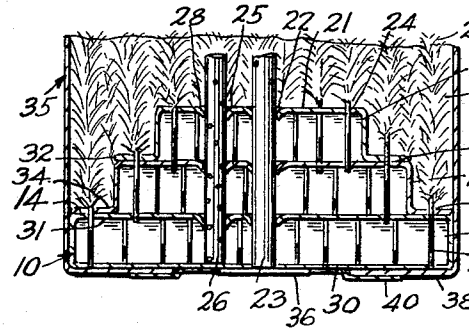


Fig. 8



Fig. 6

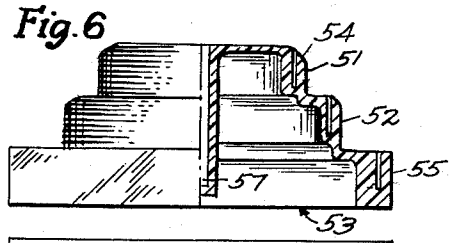
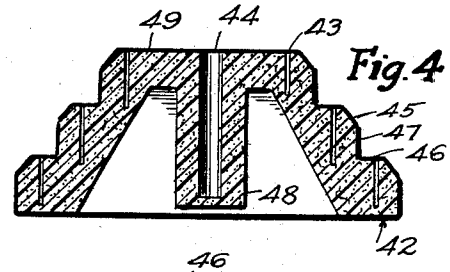


Fig. 4



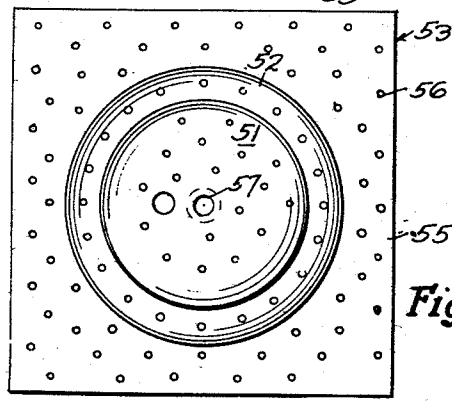
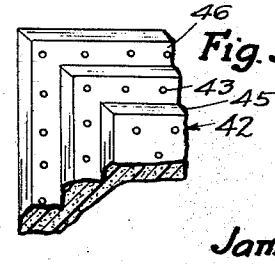


Fig. 7

Fig. 5



INVENTOR.
James M. Ness
BY Harry Jacobson
ATTORNEY

United States Patent Office

3,083,824

Patented Apr. 2, 1963

3,083,824

ARTIFICIAL TREE PACKAGE

James M. Ness, Highlands, N.J., assignor to R. O. Kent Corp., New York, N.Y., a corporation of New York

Filed Jan. 12, 1961, Ser. No. 82,275
6 Claims. (Cl. 206—65)

This invention relates to artificial Christmas trees of the type having branches removable from the trunk, and especially relates to the means for storing, shipping and assembling the tree parts.

Many such artificial trees are made with a sectional cylindrical trunk having holes therein at predetermined angles and spacing for the reception of the bare inner ends of the metallic rods forming the cores or stems of the branches. Fringe fingers in imitation of needles are carried by the rods and may be of the type shown in the Hankus Patent No. 2,889,650 or the Reece et al. Patent No. 2,893,149. For shipment and storage, the branches have heretofore, in many types of trees, been removed from the pole-like trunk, and the bare inner ends thereof have been inserted into parallel holes in a suitable flat sheet or platform which holds the branches upright and apart to avoid entanglement. The thus held branches and platform are inserted as a unit into a carton, all as shown in the Hankus Patent No. Re. 24,774. The branches are frequently made of different lengths to present a conical effect when the tree is assembled by the user. After use, the user may disassemble the tree, return the branches to the holes in the storage sheet, place the assembly back into its carton and store the boxed tree for reuse the next year.

The storage means and method just described necessitates the use of a separate and independent branch-holding member, a separate base member and some means for holding and storing the trunk.

The present invention contemplates the provision of a single unit constituting a combined tree base, branch storage holder and trunk holder of inexpensive construction and which permits the easy storage of, and access to, the tree parts and the easy selection and removal of branches of the desired lengths when the tree is to be assembled.

The invention further contemplates the provision of a branch supporting means having parallel branch-holding perforations or interstices therein which are sufficiently close together to permit the needle-like fingers or foliage of the branches to interlock to some extent, thereby to hold the branches against unwanted displacement and in mutually supporting and space saving positions during shipment and storage, but permitting removal of the branches without permanent distortion of the fingers, the base serving after removal of the branches therefrom, as an ornamental stand for the trunk and the assembled tree.

The invention further contemplates the provision of a compact shipping and storage package which includes the branch-holding and trunk-holding base as a part thereof, the base being readily separated from the carton-like wrapper of the package when it is to be used as the base of the tree, and the branches and trunk being similarly removable from and the ends thereof being insertable into the interior of base for assembly and disassembly of the tree.

The various objects of the invention will be clear from the description which follows and from the drawings, in which

FIG. 1 is a perspective view of the complete shipping package for the disassembled tree, parts of the wrapper being cut away to show the stored overlapped branches and trunk, and parts of the branches being omitted for clarity of illustration.

FIG. 2 is a fragmentary enlarged vertical sectional view of the lower part of the package showing bottom flaps on the wrapper taped to the bottom of the base.

FIG. 3 is a combined half bottom plan view of FIG. 2 (at the right hand half of the figure) and a half top plan view of the base with the branches removed and the top omitted, it being understood that the package is symmetrical about the center line thereof.

FIG. 4 is a vertical sectional view of another form of the base as it appears made of foam plastic having a skin thereon.

FIG. 5 is a fragmentary top plan view of FIG. 4.

FIG. 6 is a half vertical sectional view, at the right hand half of the figure, and half elevational view of a modified form of the base as it appears molded of plastic.

FIG. 7 is a top plan view of FIG. 6.

FIG. 8 is a fragmentary enlarged elevational view of a pair of adjacent branches showing the interlocked entangled fingers thereof.

In that form of the invention shown in FIGS. 1–3, the tree base or stand 10 is made of suitable inexpensive material such as cardboard, fiber board, vulcanized fiber, wood or the like in several tiers or layers 11, 12 and 13 preferably secured permanently together. Each layer is shown in the form of a square prism or plinth of progressively decreasing size upwardly to provide an annular rim or border as 14 constituting the exposed wall at the top of the layer 11, and a similar rim 15 around the exposed top of the layer 12. The base can therefore be said to be step-like in cross section, and to have a terraced appearance. Lines of perforations or interstices as 17 encircle each rim for the reception of the bare inner ends of the cores or stems 18 of the artificial branches 19. Each branch is wrapped as is well known, with a suitable foil or plastic fringe 20 giving the desired needle or foliage effect, the material being sufficiently resilient to permit the needles to return to the initial shapes thereof when unlocked from adjacent branches.

The storage hole 17 receives the branch stem rather tightly and is small enough not be to readily visible when the branches are removed therefrom and hence do not detract materially from the ornamental appearance of the base. They may even be utilized as additional ornamentation by reason of the arrangement thereof or the use thereof as part of a decorative scheme. Preferably, the perforations 17 are relatively close together, being spaced apart a distance less than the outermost or overall diameter of the free fringe or needles of the branch. The end portions of the needles of adjacent branches stored in adjacent holes 17 consequently interengage and overlap and become more or less interlocked or entangled, thereby aiding to maintain the branches upright and mutually supporting and to form a massed sufficiently tangled unit to insure against unwanted displacement of any individual branch without permanent entanglement or distortion and to reduce the space required for transportation and storage over that required for separated branches.

As shown, the holes are arranged in the outline of a square on each of the rims or margins 14 and 15, though said holes may be staggered with respect to adjacent holes in an obvious manner. On the top surface 21 of the base, the central hole 22, preferably for the permanent reception of a trunk section as 23 in the form of a pole, is surrounded with other branch-receiving holes 24 arranged in any desired pattern. A second relatively large hole 25 in the top 21 removably receives a second section 26 of the trunk. Instead of removing the material from the holes when making them, intersecting diametral cuts as 27 may be used to form depressible flaps as 28 when the trunk or branch core is forced down against and through the wall in which the hole is to be made at the

cuts. The tendency of such flaps to return to the initial positions thereof serves to hold the core end or trunk rod in place in the hole. Obviously, adhesive may also be used on the flaps to hold the central part or pole 23 permanently in the hole 22, from which it need not be removed at any time.

To aid in holding the branches upright and for inexpensively reinforcing and bracing the parts of the otherwise hollow base, the bottom layer 11 is formed with a bottom wall 30 and a top wall 31. Additional holes may be made, if desired in the wall 30 in alignment with the branch-receiving holes 17 in the rim 14 and with the trunk-receiving holes 22 and 25 so that the lowermost ends of the branches in the rim 14 as well as the lower end of the trunk are held against possible swaying. In the next upper layer 15, the bottom wall is omitted and an outwardly directed annular flange as 34 is provided all around the upright side and end walls of the layer. Such flange is secured to the peripheral part of the top wall 31 of the lower layer, thereby providing a double thickness of material at the rim 14, insuring a relatively long bearing for the branch rods at the holes 17. Similarly, the top layer 13 has no bottom wall, but is provided with the perforated annular flange 32 secured to the rim 15 and similar to the flange 34.

It will be understood that in cases where the branches differ in length, the longer branches are inserted through the rim 14, those of intermediate length in the rim 15 and the shortest in the top 21. It will also be understood that since each layer has a top reinforcing wall, such wall may be perforated with holes aligned with those of the rim or wall above, as has been indicated in connection with the wall 30. It will further be understood that the shapes of the steps or layers may be greatly varied, as for ornamental purposes and as has been exemplified in FIGS. 5 and 7.

To complete the shipping and storage package after the branches and trunk have been inserted into the base, a relatively rigid sleeve-like carton or wrapper is provided, having flaps as 36, 37, 38 at the bottom thereof and having a top wall 39 and side walls connecting the top and the bottom flaps. The side walls fit and engage the side walls of the bottom layer 11, while the top wall may rest on the tops of the trunk sections, and the flaps are folded on to the bottom wall 30 of the base. Preferably, said bottom wall is not entirely covered by the flaps, so that such wall forms at least part of the bottom of the package. The flaps are secured to the bottom wall 30 in any suitable manner as by means of the gummed paper strips 40 or staples or the like. Similarly, the top wall may be temporarily stapled during shipment to the adjacent upper end of the fixed trunk section. If desired, the flaps may be entirely omitted, and the side walls of the wrapper 35 stapled during shipment to the side walls of the layer 11.

On receipt of the package, the user merely removes the staples holding the wrapper in place and cuts the gummed paper strips, if any, holding the bottom flaps to the base. On opening said flaps, the shipping assembly of the base, branches and trunk may be readily removed as a unit and set up. All that the user need then do to assemble the tree is to connect the upper trunk section 26 to the fixed trunk section 23 as by means of the usual dowel joint, then remove the shorter branches from the holes in the layer 13 and insert said branches into the holes provided therefor in the section 26, doing the same with the other branches in the remainder of the trunk. The operation is reversed to disassemble the tree, the trunk section and branches being replaced in the holes provided therefor, and the thus assembled base and branches inserted into the wrapper for re-use the next year.

It has been indicated that the shape of the base and the material of which it is made may be varied considerably for purposes of ornamentation, economy strength and the like though retaining an important feature of the invention comprising a series of substantially concentric lines of branch-receiving holes at different levels.

As shown in FIGS. 4 and 5, the base 42 is made of suitable plastic foam of the desired stiffness and preferably somewhat compressible to frictionally engage the branches and trunk inserted into the holes 43 and 44 thereof. The holes are preferably blind holes to limit the distance into which the articles can be inserted thereinto. In the form shown, the base is of generally square or rectangular pyramidal form, with cut-outs in the upwardly and inwardly tapered lateral surface 45 thereof to provide horizontal surfaces 46 and vertical surfaces 47 of step-like or terraced form. A central bearing 48 receives the trunk section in the hole 44 thereof and projects downwardly from the top of the base. To grip the branch ends firmly, the foam base is preferably made with a tough elastic skin 49 in which the holes are slightly smaller than the diameter of the branch core 18.

Another of the many possible variations in form and material is shown in FIGS. 6 and 7 wherein the two upper tiers 51 and 52 of the base 53 are cylindrical with rounded upper corners 54 and the lowermost tier 55 is a square plinth. The base 53 is molded of a single piece of suitable plastic with the blind branch-receiving holes 56 and trunk hole 57, the various walls of the base being relatively thin.

It will now be seen that by arranging substantially concentric lines of branch-receiving holes around tiers at different levels in a tree stand, the stand itself can be made to function as an ornamental base for the tree as well as a means for compactly arranging and shipping all of the tree parts held thereby, including branches differing in length; that the branches are securely held against accidental displacement by the base aided by the tendency of the needles thereof to interlock with the needles of adjacent branches; that the branches may be easily removed from the base for insertion into the trunk without damage to the relatively resilient fringe needles; that the base may form part of the shipping package, and that the various objects of the invention have been adequately attained.

While certain specific forms of the invention have herein been shown and described, various obvious changes may be made therein without departing from the spirit of the invention defined by the appended claims.

I claim:

1. A package for the shipment and storage of the disassembled parts of an artificial tree comprising a base serving as a branch holder during shipment and storage of the tree, and branches each having a relatively rigid core and flexible resilient fringe fingers outstanding from the core and in overlapping entanglement with the fingers outstanding from adjacent cores, and a sectional trunk having holes therein for the reception of the end parts of the cores when the tree is assembled, the base being provided with relatively small closely spaced holes for the reception of said end parts of the cores and being provided with a relatively large hole for the reception of the lowermost part of the trunk, the smaller holes being spaced apart a distance less than the overall diameter of the fingers, the fingers of adjacent branches being entangled to form an interlocking mass resisting separation, the fingers being sufficiently resilient to yield when moved past each other by movement of the core thereof and to resume the normal freed positions thereof when withdrawn from the package, and container means enclosing and fitted to the base and the mass.

2. The package of claim 1, the base having a second relatively large hole therein adjacent the first mentioned relatively large hole, for the reception of the upper part of the trunk.

3. The package of claim 1, the base comprising a series of tiers at different levels, the closely spaced holes being arranged in rows in each tier, the branches being

in sets, each set being of a different length, the end parts of the cores of the longest set being inserted into the respective holes of the lowermost tier, the end parts of the cores of the shortest set being inserted into the respective holes of the highest tier, the end parts of the cores of the intermediate sets being inserted into the respective holes of the intermediate tiers, and the lengths of the branches of the sets being such that the tops of all the branches are substantially coplanar in the package.

4. A package for the storage and shipment of the disassembled parts of an artificial tree comprising

a base serving as a branch holder during storage and shipment of the tree,

branches each having a relatively rigid core and flexible resilient fringe fingers outstanding from the core and in overlapping entanglement with the fingers outstanding from the adjacent cores, and

a trunk having holes therein for the reception of the end parts of the cores when the tree is assembled,

the base being provided with relatively small closely spaced holes for the reception of said end parts of the cores and being provided with a relatively large hole for the reception of the lowermost part of the trunk,

said part of the trunk being permanently secured in said large hole in a position substantially parallel to

the branches whereby the branches, base and trunk are adapted to be withdrawn as a unit from the container hereinafter mentioned,

the small holes being spaced apart a distance less than the overall diameter of the fingers, and

container means enclosing and fitted to the base and the branches and having openable end flaps for the passage of the base, trunk and branches as a unit.

5. The package of claim 4, the trunk being sectional and having an upper sectional part, and the base having a second relatively large hole therein, receiving removably said upper sectional part of the trunk.

6. The package of claim 5, the branches being of different lengths and being disposed in the base to arrange the corresponding ends of the branches in a substantially coplanar position.

References Cited in the file of this patent

UNITED STATES PATENTS

Re. 24,774	Hankus	Feb. 2, 1960
222,107	Waters	Nov. 25, 1879
1,135,625	Savin	Apr. 13, 1915
2,842,260	Molitor	July 8, 1958

FOREIGN PATENTS

854,039	Great Britain	May 6, 1959