Dec. 26, 1961 N. PAUL ETAL 3,014,300

MINIATURE ARTIFICIAL CHRISTMAS TREE

Filed Aug. 18, 1959

Fig. 1.

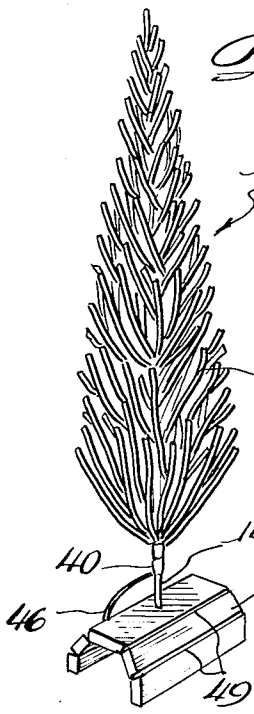



Fig. 2.

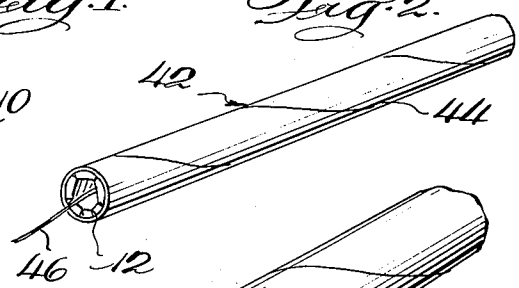



Fig. 3.

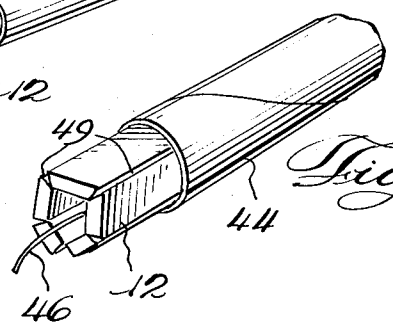



Fig. 4.

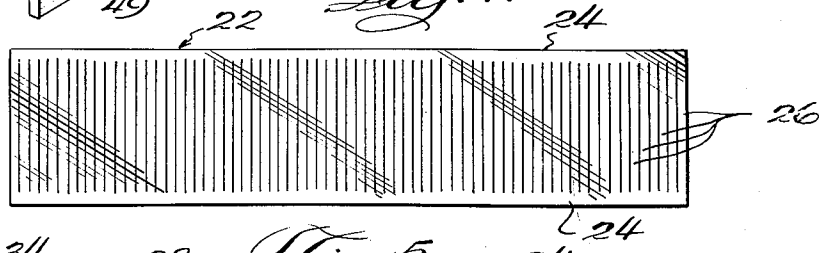



Fig. 5.

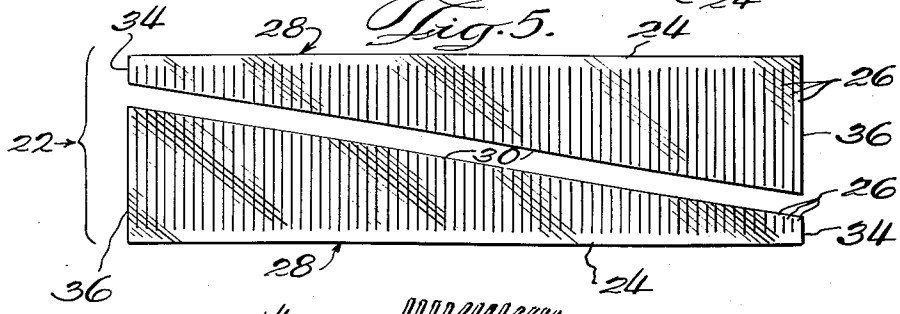
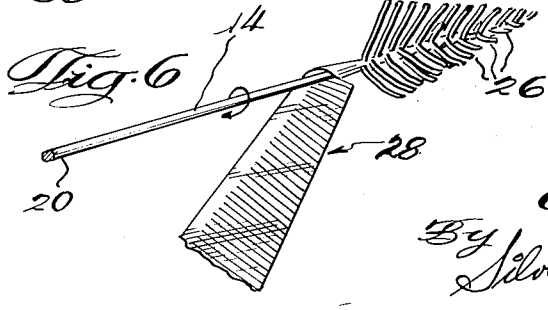



Fig. 6




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3,014,300

Patented Dec. 26, 1961



3,014,300

# MINIATURE ARTIFICIAL CHRISTMAS TREE

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Filed Aug. 18, 1959, Ser. No. 834,555
1 Claim. (Cl. 41—15)

This invention relates generally to artificial trees and more particularly, relates to a novel construction for a miniature artificial Christmas tree which can be made and packaged conveniently and economically.

An important object of the invention is to provide a miniature artificial tree of the character described which is comprised of a trunk made of a metal rod having at least one strip of shredded metal foil helically wrapped thereon to provide the foliage having a uniform taper configuration with the apex at the top of the tree. In addition, another object is to provide a novel method of making a Christmas tree in this manner.

Another important object of the invention is to provide a miniature artificial tree of the character described which can be packaged in a cylindrical tube or sleeve along with a pedestal for the tree collapsed on the interior of the tube or sleeve, said tree and pedestal being removable without deformation or distortion of the foliage to permit erection thereof. An ancillary object of the invention is to provide, in combination, a sleeve package having an artificial tree and pedestal packaged therein in collapsed condition and removable therefrom without deformation or distortion of the foliage for assembly of the tree.

Another object of the invention is to provide a novel method of making a miniature artificial tree of the character described which comprises forming a strip of metal foil with an imperforate, continuous segment along each longitudinal edge thereof and the segments are connected by transversely extending fillets or needles of uniform width, slicing the strip along a diagonal from end to end thereof to form a pair of half-strips of substantially identical construction and configuration, each including one of said segments, and then, helically wrapping a said half-strip on a rod to form said miniature tree.

The foregoing and other objects of the invention will become apparent as the description thereof is evolved. A preferred embodiment of the invention has been described in detail in the accompanying specification and illustrated in the accompanying drawing. Minor variations are deemed possible without circumventing the principles or sacrificing any of the advantages of the invention.

In the drawing:

FIG. 1 is a perspective view of the miniature artificial tree embodying the invention in erected condition.

FIG. 2 is a perspective view of the sleeve or tube package having the said miniature tree and a pedestal for the tree collapsed on the interior thereof.

FIG. 3 is a fragmentary perspective view of the package of FIG. 2 with the pedestal shown partially removed through one end of the sleeve.

FIG. 4 is a plan view of the metal foil strip, prior to longitudinal sectioning thereof, which can be used to provide the foliage of the tree.

FIG. 5 is a plan view showing the manner in which the half-strips can be formed from the entire strip of FIG. 4, and FIG. 6 is a perspective view showing a single half-strip helically wrapped partially on a rod for manufacturing said miniature tree.

Before proceeding with the details of the invention, it would be well to consider the possible uses to which the miniature artificial tree embodying the invention can be advantageously put. It is contemplated that the overall



length of the tree will be approximately nine to twelve inches; ideal for placing on a table, for instance, in restaurants, during the Christmas season. The product is economical to manufacture and package compactly, including the collapsible pedestal for the tree, so that it can be given away, at Christmas time, as a gift, a promotion item, or a premium. The package can be imprinted with advertising to suit individual purchasers desiring to use the tree for such purposes in the Christmas season. The miniature tree is ornamental and attractive and can be used in many decorative ways. After use, the tree can be easily re-packaged and storaged for future use. Also, the packaged product enables considerable savings in storage and shipping costs to be realized by the manufacturer.

Referring now to the drawing, the miniature artificial tree is designated generally by the reference character **10** in FIG. 1. In erected condition, the tree **10** has a relatively narrow, tapered configuration with the apex at the top thereof, and it will be noted that the taper is substantially uniform from top to bottom. The tree **10** is supported on a collapsible pedestal **12**.

The simple construction of the tree **10** is noteworthy. Same includes a straight rod **14** preferably of metal, such as aluminum or steel along the major length of which is provided the foliage **16** of tapered configuration. Referring to FIG. 6, the foliage is provided by helically wrapping a single strip **28** of metal foil of low gauge on the rod **14** commencing at one end of the rod and completing the wrap at a point spaced from the opposite end **20** so that end **20** is unwrapped or uncovered. The construction of the foil strip **28** contributes to the tapered configuration for the foliage merely upon completion of the wrapping thereof on rod **14**.

The manner in which the metal foil strip **28** is advantageously made is shown in FIGS. 4 and 5. In FIG. 4, a strip **22** of metal foil, preferably aluminum, is formed of desired length depending upon the length of rod **14** to be wrapped. Initially, the strip **22** has an imperforate, continuous narrow band **24** along each side edge thereof and the bands are connected by the fillets or needles **26** of uniform width struck from the body portion of the strip **22** intermediate the bands **24**. The needles or fillets **26** are transverse to the bands **24** and the length of the strip **22**. Foil of approximately 3½ inches wide was found suitable. Thereafter, as seen in FIG. 5, the strip **22** is severed on a diagonal line along the length thereof to form a pair of substantially identical half-strips **28** each having an imperforate band **24** along one edge thereof. The opposite edge **30** of each half-strip **28** is angled relative the band **24** so that the half-strip **28** has a somewhat quadrilateral configuration in plan view with the band **24** forming the base and the edge **30** forming the hypotenuse of the triangle. The fillets or needles **32** of each section **28** are separable at their respective ends opposite their connection to the band **24**. Each half-strip **28** corresponds to the strip **28** from which the foliage **16** is made.

Considering the half-sections **28**, each has a narrow extremity **34** and a wider extremity **36**, with the needles becoming progressively shorter approaching the end **34**. It may further be noted that the extremities **34** of the sections **28** are identical in width one relative the other, as are the extremities **36** of the respective sections. This is achieved by commencing the severance of strip **22** at one end thereof inwardly spaced from one band **24** and continuing diagonally across the strip to the opposite end and band **24** and terminating at substantially the same distance from the opposite band as started to achieve the graduated or varying length of needles from end to end of each half-section **28**. Thus, two trees **10** can be made from one strip **22**. The narrower extremity or

end edge **34** enables the end of the rod **14** opposite end **20** thereof to be covered by the short needles **26** which protrude outwardly therefrom as seen in FIG. 6.

Various ways of making the half-strips **28** may occur to the skilled artisan. The initial strip **22** may first be formed to suitable length in one operation and then the diagonal cutting of the strip **22** done to obtain the half-strips **28**. Or, unworked aluminum foil of desired width can be unrolled from a reel for passage through a die cutting machine which will cut the fingers **26** and slice a suitable length of foil diagonally to obtain the half-strips **28** all in a single pass through the machine.

Referring to FIG. 6, to complete the tree, a half-strip **28** or **18** is wrapped helically on a rod **14** commencing at one end of the rod. As illustrated, the wrapping has been commenced with the narrow end **34** of a half-strip **28** secured to an end of the rod **14**, such as by a smear of adhesive (not shown) on the rod. The band **24** is wrapped on the rod by rotating the rod relative half-strip **28** to cause the individual fillets or needles **26** to spring radially outward around the rod. Upon completion of the wrap, a segment **40** of adhesive tape may be engaged over the band **24** at its wider end to prevent unraveling of the foil strip and creeping of the wrapped strip away from the exposed end **20** of the rod. For decorative purposes, the tape **40** may be colored or otherwise ornated.

It is preferred to make the tree foliage **16** out of aluminum foil which can be packed as shown in FIG. 2. For this purpose, a relatively hard foil is employed which is available commercially and is believed to comprise an alloy of aluminum and magnesium. This foil material enables the needles **26** to be compressed or folded toward the rod and upon release, spring back to the normal position thereof represented in FIG. 1. The compact package **42** shown in FIG. 2 includes an elongate sleeve or tube **44** preferably formed of helically wrapped strips of cardboard, although other material is suitable. The sleeve **44** is longer than the overall length of the tree **10** and is open at both ends thereof.

The tree **10** is collapsed on the interior of the sleeve in packaged condition. This can be done in a number of different ways, such as by inserting the end **20** in one open end of the sleeve and then, the sleeve and tree are moved relative one another, to slide and collapse the foliage **16** on the interior of the sleeve in the axial direction of helical winding on the rod **14**. A pull-member in the form of a short length of line **46** is secured to the rod **14** by means of the tape **40** (or a separate piece of tape may be used for this purpose) so that the tree can be slided out of the sleeve by drawing on the line **46** to provide access to the uncovered end **20** of the rod.

A pedestal **12** also is packaged with the tree. As seen in FIG. 1, same may comprise a disc of flexible material, such as corrugated board which has been scored as at **49** to permit the pedestal to be rolled for insertion into the sleeve **44** with the line **46** extending therethrough outwardly of the sleeve, as illustrated in FIG. 2. To erect the tree, the pedestal **12** is removed first, as shown in FIG. 3 and then, the tree is withdrawn from the sleeve and the uncovered end **20** inserted in a suitable socket provided in the pedestal **12**. Other structures for the pedestal may be considered to go along with package **42**.



It will be appreciated that advertising indicia and promotion material may be provided on the exterior surfaces of sleeve **44**. The entire package product **42** is economical, convenient to storage and handle and very effective for use as a gift or promotional or premium item during the Christmas season.

Although the tree **10** has been illustrated formed of a single strip **28**, to achieve an even fuller and luxuriant foliage appearance, more than one strip can be wrapped simultaneously on the rod. For instance, a pair of strips **28** superimposed one upon the other and then wrapped on the rod contributes this more luxuriant foliage appearance. Also, instead of forming the needles **26** substantially perpendicular to the band **24**, they can be angled somewhat relative to the band. These and other modifications may occur to the skilled artisan following the principles of the invention.

It is believed the invention has been described in sufficient detail to enable the skilled artisan to understand and practice the same. It is intended that the language of the claim hereto appended should be construed broadly commensurate with the achievement contributed thereby.

We claim:

A miniature artificial Christmas tree having a conical configuration with the apex at the top thereof comprising, a rigid cylindrical rod providing the trunk of the tree, a flat strip of flexible foil having a quadrilateral configuration secured on said rod to provide the foliage of the tree, said strip having a continuous narrow band along one longitudinal edge from end to end thereof, parallel end edges of different length transverse to said band and a diagonal edge connected with said end edges opposite to and laterally spaced from said band, a plurality of individual needles integral and coextensive with said band, said needles having free ends separable one from the other and arranged along said diagonal edge whereby said needles are graduated in length along the entire band, said band being helically wrapped around the rod commencing at one and terminating short of the opposite end of the rod with said needles projecting radially outwardly along a major portion of the length of the rod in simulation of tree foliage and the free ends of the needles cooperating to define the conical configuration of the tree, said end edge of shorter length being wrapped around said one end of the rod and having needles thereof projecting outwardly of said one end to form an apex of the tree.

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