Feb. 26, 1952 F. C. SHINA 2,587,003

ARTIFICIAL CHRISTMAS TREE

Filed April 22, 1950

Fig. 1.

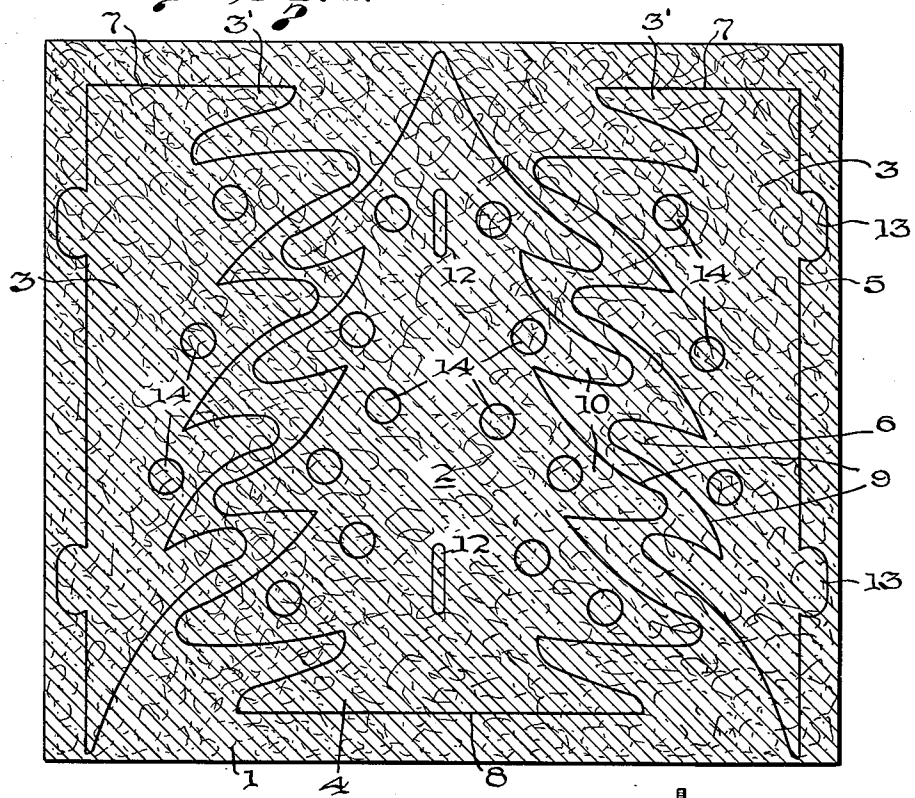


Fig. 2.

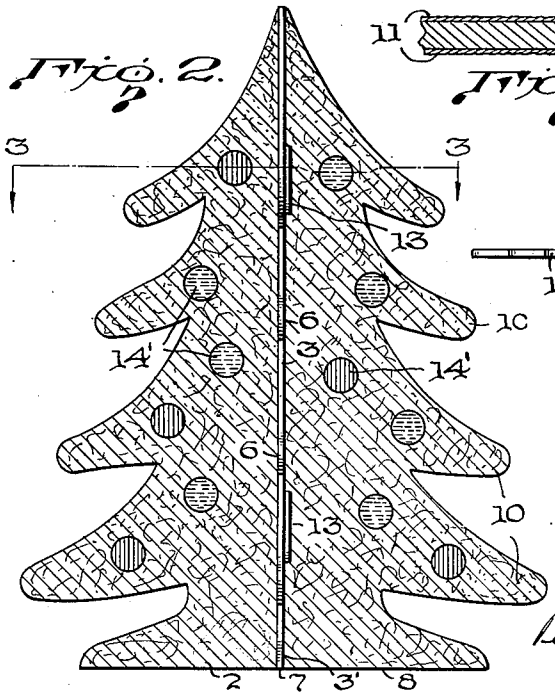


Fig. 4.

Fig. 3.

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ARTIFICIAL CHRISTMAS TREE

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7 Claims. (Cl. 41—15)

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This invention relates to improvements in decorative articles and particularly to a three-dimensional artificial Christmas tree which may be sold in blank or knock-down form and thereafter assembled for use in homes, store windows, offices and many other places where decoration is desired during the Christmas or any other season.

Various kinds of artificial Christmas trees have been proposed. Mostly, they comprise a trunk from which separate limbs extend in a manner to simulate the natural tree. The limbs frequently have artificial needles to make them more nearly resemble the appearance of a spruce or other evergreen tree. Such trees may be used without decorations, may have decorations such as bubble lamps or the like attached to the limbs, or may be decorated by hanging ornaments of any kind on the limbs. Such artificial trees are relatively expensive and involve various manufacturing operations.

It also has been proposed to form artificial Christmas trees from pieces of sheet material of such shape that when assembled the assemblage has the general shape of an evergreen tree. While such assemblages may be made to generally simulate the shape of a natural evergreen tree, all such proposals of which I am aware have merely consisted of an assemblage of sections of the same color. Also being of sheet material, they have not been particularly adapted for the supporting, in an attractive manner, of decorations such as normally are used in decorating Christmas trees.

The present invention contemplates a three-dimensional artificial Christmas tree which may be manufactured inexpensively in knock-down or blank form and which comprises sections, preferably of sheet material, which readily may be assembled to form a relatively rigid, stable and attractive artificial Christmas tree. The several sections to form the Christmas tree preferably are sold in the form of a blank of cardboard or the like with each section defined by score or cut lines so that it readily may be removed for assembling with the other sections.

In its preferred form the invention contemplates a three-dimensional artificial Christmas tree of assembled sections of sheet material of any desired color which may be decorated in an attractive manner with simulated ornaments of a contrasting color or colors. To that end, each section is formed with a plurality of simulated ornament-forming knock-out parts in various shapes to represent ornaments such as those

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normally used to decorate Christmas trees; for example, balls, stars, crescents and the like. The knock-out parts are spaced over the respective sections at such places where it is desired that the simulated ornaments eventually appear. The blanks may be sold in sets of two or more with each blank of a set of a different color, such as red, blue, green, silver, gold, etc., so that when assemblying the sections of one of the blanks to form an artificial Christmas tree, the knock-out parts may be removed from the blank being assembled to form openings into which knock-out parts of corresponding shape from a blank or blanks of a contrasting color or colors are inserted. Thus, if the sections of, for example, a green blank are being assembled, the knock-out parts may be removed from those sections and the resulting spaces filled with knock-out parts of a corresponding shape from say, red and silver blanks. An attractive artificial tree is thereby produced which has spaced over its several sections ornaments of a contrasting color or colors.

In the simplest form of the invention, the blanks include three sections to be assembled together; a main section having the general shape of a vertical diametrical cross section through a spruce or other evergreen tree, while the other two sections have the general shape of vertical radial sections through such a tree, with one of the side edges of each of the sections being straight and adapted, when assembled with the main section, to lie flat against one side of the main section. The main section is provided at its vertical center with a plurality of spaced slots or a plurality of knock-out parts to leave slots, and the two radial sections have tabs corresponding in length to the length of the slots of the main section extending from their straight edges. In assembling the three sections, the straight sides of the radial sections are abutted against the opposite sides of the main section with the tabs protruding therefrom extending through the slots in the main section. The slots in the main section are of such width that the sides thereof have a tight frictional engagement with the sides of the tabs and thus hold the radial sections tightly against the main section in assembled relation. All of the parts have straight bottom edges lying in the same horizontal plane to provide a base which will enable the assembled structure to be stably supported on a table or the like.

The invention will be further described in connection with the accompanying drawings which

illustrate a preferred form of the invention. However, it is to be understood that such further description is by way of exemplification and the invention is not limited thereto except to the extent specifically set forth in the appended claims.

In the drawings:

Fig. 1 is a plan view of the several sections to form an artificial Christmas tree di-cut from sheet material,

Fig. 2 is a side elevational view of a Christmas tree made from the sections of Fig. 1,

Fig. 3 is a horizontal sectional view on line 3—3 of Fig. 2, and

Fig. 4 is an enlarged sectional view through the sheet material from which the several sections to form the artificial Christmas tree are formed.

Referring to the drawings, the several parts to be assembled to provide an artificial Christmas tree are formed from sheet material 1, and, as illustrated, comprise a main section 2 and auxiliary or side sections 3. For reasons to be hereinafter set forth, the auxiliary sections 3 are formed in the sheet material in inverted position. The main section consists of a base portion 4 and an upper portion having the general shape of a vertical diametrical section through a spruce or other evergreen tree. Each of the sections 3 has the general shape of a vertical radial section through such a tree, and each has a straight vertical side edge 5 adapted, in assembled position, to bear against one side surface of the main section 2. The opposite side edge of each section 3 is formed with branch- or limb-simulating extensions 6. The base portion 3' of each of the sections 3 has its bottom edge 7 extending at right angles to the straight vertical edge 5, and the bottom edges 7, when the sections are assembled into tree-simulating form, are adapted to lie in the same horizontal plane as the bottom edge 8 of the base 4 of the main section, in order that the assembled structure may be stably supported on a table or other horizontal surface.

Each of the three sections is defined by scored or weakened lines 9, or are actually, for the greater portion of their periphery, di-cut from the sheet material 1, with only sufficient connections between the respective sections and the remaining portions of the sheet material to temporarily hold the sections in place. The auxiliary sections 3 preferably are formed in the sheet material in inverted position so that the branch-simulating extensions 6 of each of them may extend into the spaces between similar extensions 10 of the main section 2, thereby to enable the several sections to be formed from the least amount of the sheet material.

The material from which the several sections are formed ordinarily will be cardboard of appropriate thickness, although any other suitable material may be used. Both sides of the sheet material are covered with a sheet of thin metal foil or paper 11 of the desired color and having a highly reflective surface, or else are coated with a lacquer or other coating composition which will provide the desired surface finish. In order that the surfaces of the sections 2 and 3 shall better pick up and reflect light, and also shall have more the appearance of natural evergreen foliage, they may be pebbled, creped or otherwise embossed to give the general effect of the needles of such a tree.

The main section 2 is provided with a pair of vertically-elongated knock-out parts 12 spaced

along its vertical center line, which, when the parts are assembled as set forth below, corresponds to the position of the trunk of a natural tree. One of the knock-out parts is positioned near the bottom of the section and the other near its top. These knock-out parts are later removed to provide vertically-extending slots to receive vertically-extending tabs 13 protruding from the straight side edge 5 of the sections 3.

If desired, instead of merely forming knock-outs which can be removed to provide slots for the protruding tabs 13, completely formed slots initially may be provided. However, for convenience of manufacture mere provision of the knock-outs is preferred.

The slots formed by removal of the knock-outs 12 are of a width substantially equal to twice the thickness of the sheet material 1 from which the respective sections are formed and of such width that when the tabs 13 of both side sections 3 are inserted into them, as hereinafter described, the tabs will maintain such a tight frictional engagement with one another and with the side edges defining the slots as to securely hold the straight edges of the side sections in tightly abutting relation to the opposite flat surfaces of the main sheet 2.

Each of the sections 2 and 3 is provided at places where it is desired for simulated ornaments to appear in the assembled structure with knock-out parts 14. While the knock-out parts 14 are shown in the drawing as having the shape of circles to represent balls, they may be of any desired shape, such as in the shape of stars, crescents, triangles, candy canes, crosses, etc. The knock-outs 12 and 14 may be formed by di-cutting or otherwise.

The blanks shown in Fig. 1 with the several parts to form an artificial Christmas tree may be sold in sets of two or more, with each blank of a different color, such as green, red, blue, silver, gold, etc.

When an artificial Christmas tree is to be formed from one of the blanks, such as a green blank of a set including green, red and silver blanks, all of the knock-outs 14 of the several sections of the green blank are removed to provide openings or holes where the knock-outs originally were and knock-outs 14' from the red and silver colored blanks of a size and shape corresponding to the size and shape of the openings in the green blank are inserted into the openings in the green blank, and flush with the opposite sides thereof. Each of the three sections of the green blank then will have red and silver simulated ornaments distributed over both of its flat surfaces.

The three sections with the simulated ornaments distributed over their surfaces then are assembled by abutting the straight edges of each of the sections 3 against the opposite flat sides of the main section 2 so that the sections 3 extend from the main section at right angles, and with the upper and lower tabs 13 of each section 3 extending through the upper and lower slots of the main section formed by removal of the knock-outs 12. By having the width of the slots in the section 2 properly correlated to the combined thickness of the tabs 13 of the two auxiliary sections 3, a tight frictional engagement will exist between the tabs themselves and between the tabs and the edges defining the sides of the slots, so that a relatively rigid structure is provided which may be stably supported by the bottom edges 7 and 8 on a table or the like.

Instead of first inserting the knock-outs from the red and silver blanks in the openings in the sections of the green blank and then assembling the three sections of the green blank, the sections first may be assembled and the red and silver knock-outs then inserted into the respective openings of the assembled sections.

In a like manner, artificial Christmas trees may be formed from the sections 2 and 3 of any other color and decorated with simulated ornaments of one or any number of contrasting colors.

The auxiliary sections 3 of all blanks of a set are interchangeable. Therefore, if desired, a Christmas tree may be formed from sections of a set so that the main diametrical section will be of one color and the auxiliary or radial side sections of one or more different colors. Thus, the main section may, for example, be green and the auxiliary or side sections red, or one auxiliary or side section may be red and the other silver, with each section decorated with simulated ornaments of one or more contrasting colors. Consequently, the present invention, in its preferred form, enables the user to exercise his artistic ingenuity not only with respect to combinations of colors of the several sections which are used in constructing an artificial Christmas tree from a set of the blanks, but also with respect to the colors of simulated ornaments to be used on the several sections and the position of the respectively colored simulated ornaments about each of the sections.

While it is preferred that the several sections be furnished in blank form, as shown in Fig. 1, and provided with the knock-outs 12 and 14, as described above, the several sections, if desired, may be sold as completely separate units, either with or without the knock-outs. If sold without the knock-outs, the several sections may be provided with openings where the knock-outs otherwise would be located, and separate pieces of a contrasting color of a shape and size to fit in the openings provided. Likewise, if desired, the sections to form the parts of the assembled artificial tree, may not be provided either with knock-outs or openings for the insertion of simulated ornaments as the broader aspects of my invention contemplate a three-dimensional artificial Christmas tree as described above without the simulated ornaments. If the knock-outs or openings for the insertion of simulated ornaments are not provided, the blanks or the parts to form a single artificial tree may be sold separately, as each blank or set of sections to form a single artificial tree will be complete in itself.

While the invention has been particularly described with respect to its embodiment in a three-dimensional Christmas tree, it is to be understood that instead of the simulated ornaments being of a shape characteristic of the shape of Christmas tree ornaments, they may be of a shape characteristic of ornaments or decorations used at any other holiday or season of the year.

Where in the appended claims the main section is defined as having a slot which is to receive the tabs of the auxiliary sections, the term "slot" is intended to include a slot which temporarily may be filled with a knock-out part, as well as an open slot.

I claim:

1. A set of at least two blanks of sheet material of different colors for forming three-dimensional artificial trees, each blank comprising sections retained in sheet form but adapted for subsequent assembling, said sections being of such

shape that when assembled they cooperate with one another to simulate a tree, the sections of each blank having knock-outs, respective knock-outs of the sections of the two blanks corresponding in size and shape, so that knock-outs of a blank of one color can be removed and inserted in openings formed in a blank of another color by the removal of knock-outs therefrom to provide a decorative effect.

2. A set of at least two blanks of sheet material for forming three-dimensional artificial trees, each blank comprising a main section and two auxiliary sections of the same color, with each blank being of a color different from the other blanks of the set, the main section of each blank having opposite side edges simulating the branches of a tree and having at least one slot positioned substantially midway between said opposite side edges and extending in a direction corresponding to the vertical direction of the main section when the latter is assembled with the auxiliary sections to form an artificial tree, each of the auxiliary sections having one side edge simulating the branches of a tree and its opposite side having straight edge portions to tightly abut one of the opposite surfaces of the main section, and at least one tab extending from said opposite side edge of each auxiliary section, the width of the slots in the main sections being so correlated to the thickness of the tabs that when two of the auxiliary sections are assembled with a main section with their oposite side edges abutting the opposite surfaces of the main section and with the tabs of each auxiliary section extending through the slot in the main section, the tabs make a sufficiently-tight frictional engagement with one another and with the respective side edges defining the slot to hold the opposite side edges of the auxiliary sections into abutting relation with the main section, the main and auxiliary sections of each blank having knock-outs, the respective knock-outs of the several sections of each blank corresponding in size and shape, so that knock-outs from one blank may be inserted into openings formed by removing knockouts from a blank of a different color to provide a decorative effect.

3. A set of at least two blanks as defined in claim 2 in which the surfaces of the several sections of each blank are highly light-reflecting and are embossed, and in which the main and auxiliary sections have bottom edges spaced the same distances from the slot and tabs, respectively, so that when the sections are assembled their bottom edges lie in the same plane to enable the resulting artificial tree to be stably supported on a horizontal surface.

4. A knock-down three-dimensional artificial tree comprising a main section and a pair of auxiliary sections, each of sheet material, the main section having opposite side edges simulating the branches of a tree and having at least one slot positioned substantially midway between said opposite side edges and extending in a direction corresponding to the vertical direction of the main section when the latter is assembled with the auxiliary sections to form an artificial tree, each of the auxiliary sections having one side edge simulating the branches of a tree and its opposite side having straight edge portions to tightly abut one of the opposite surfaces of the main section, and at least one tab extending from said opposite side edge of each of the auxiliary sections, the width of the slot in the main section being so correlated to the thickness of the tabs

of the auxiliary sections that when the auxiliary sections are assembled with the main section with their straight edge portions abutting the opposite surfaces of the main section and with the tabs of each auxiliary section extending through the slot in the main section, the tabs make a sufficiently-tight frictional engagement with one another and with the respective side edges defining the slot to hold said opposite side edges of the auxiliary sections in tight abutting relation to the opposite surfaces of the main section.

5. A knock-down three-dimensional artificial tree as defined in claim 4 in which the main and auxiliary sections have knock-outs to form, when removed, openings for receiving like knock-outs of like shape but contrasting color from other main and auxiliary sections.

6. A knock-down three-dimensional artificial tree as defined in claim 4 in which the surfaces of the main and auxiliary sections are highly light-reflecting and are embossed, and in which the main and auxiliary sections have bottom edges spaced the same distance from the slot and tabs, respectively, so that when the sections are assembled their bottom edges lie in the same plane to enable the resulting artificial tree to be stably supported on a horizontal surface.

7. A three-dimensional artificial tree comprising a main section with opposite side edges formed to simulate branches of a tree, and an auxiliary section extending from each of the opposite sides of the main section, the main and

auxiliary sections each being of sheet material, each of said auxiliary sections having its side edge remote from the main section simulating branches of a tree and its adjacent side edge tightly abutting the main section, the main section having at least one vertically-extending slot substantially in its vertical center, and each of the auxiliary sections having at least one vertically-extending tab protruding from its adjacent edge through the slot in the main section, the width of the slot being so correlated to the thickness of the tabs that the tabs form such a tight frictional engagement with one another and with the respective side edges defining the opposite sides of the slot that the auxiliary sections are held in their said abutting relation to the main section, the main and auxiliary sections having removable ornamental parts positioned in openings therein with the outer surfaces of the ornamental parts lying substantially flush with the surfaces of the main and auxiliary sections.

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