Oct. 30, 1923. 1,472,520

G. E. GRIMM

ORNAMENT FOR CHRISTMAS TREES OR THE LIKE

Filed Nov. 15, 1921 3 Sheets-Sheet 1

Fig. 1.

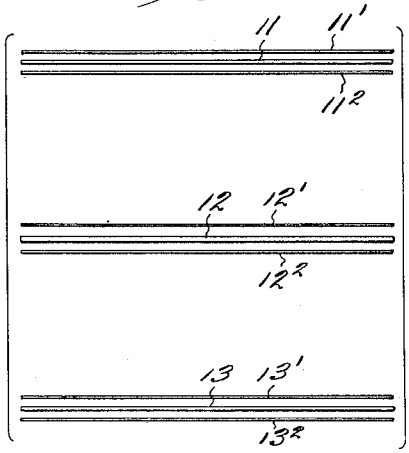


Fig. 2.

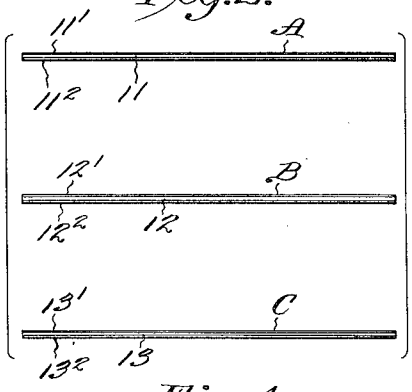


Fig. 3.

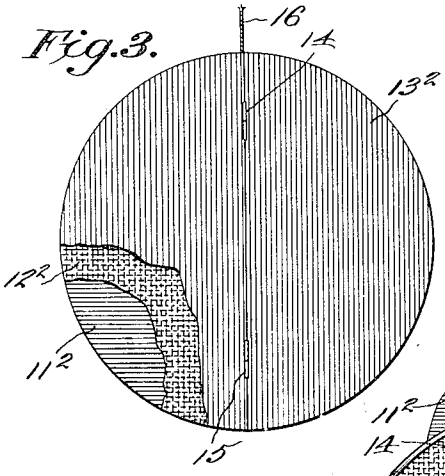


Fig. 4.

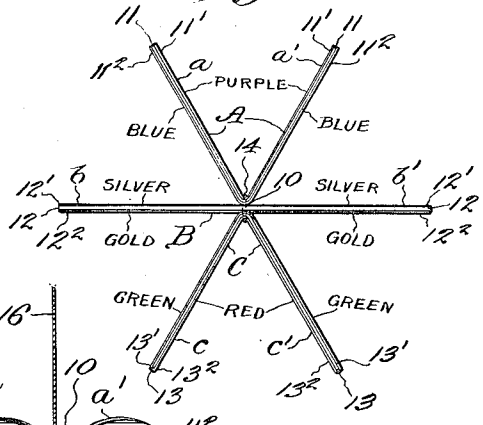
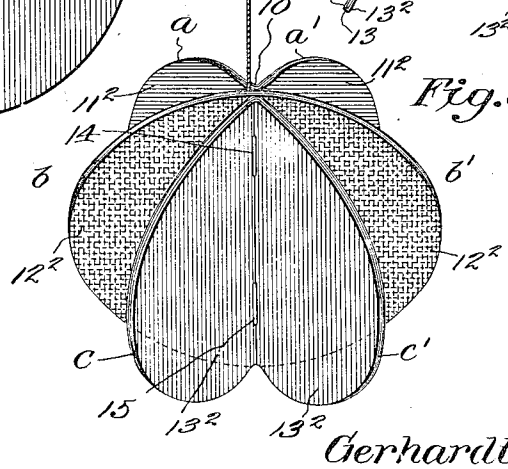


Fig. 5.



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Fig. 6.



Fig. 7.

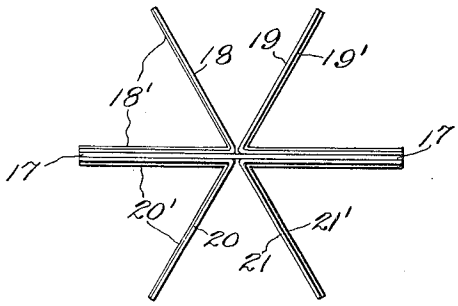


Fig. 8.

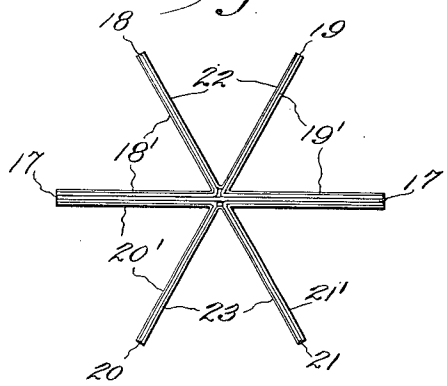


Fig. 9.

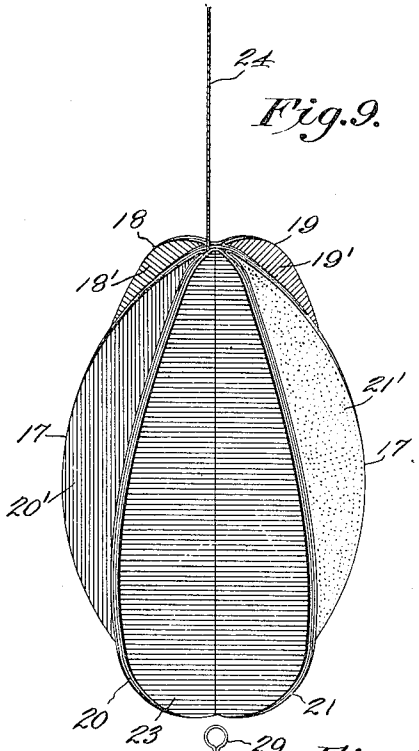
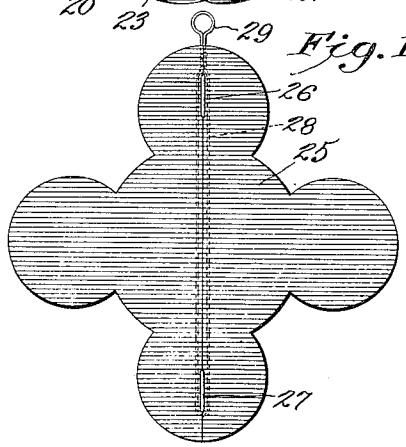


Fig. 10.



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ORNAMENT FOR CHRISTMAS TREES OR THE LIKE

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Fig. 11.

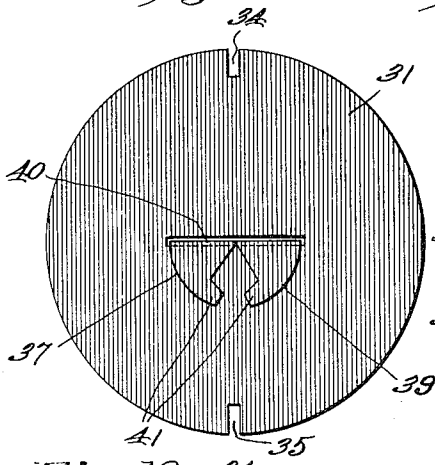


Fig. 12.

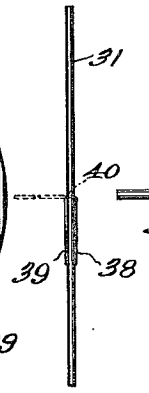


Fig. 14.

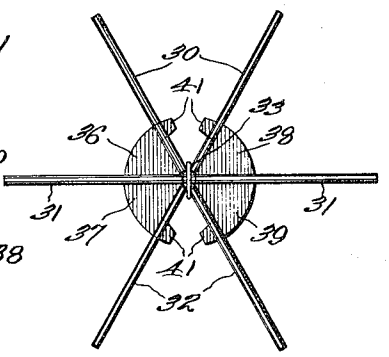


Fig. 13.

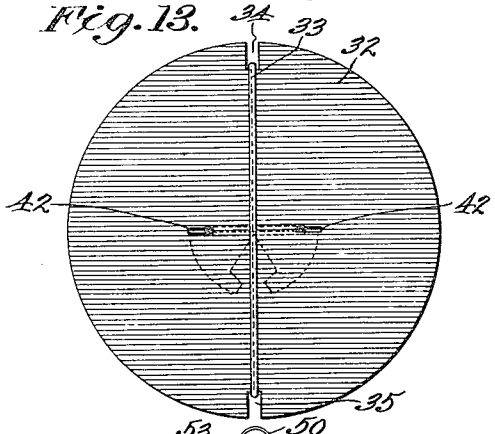


Fig. 15.

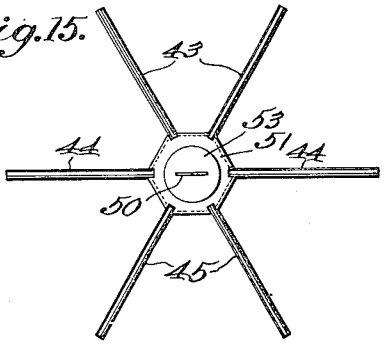
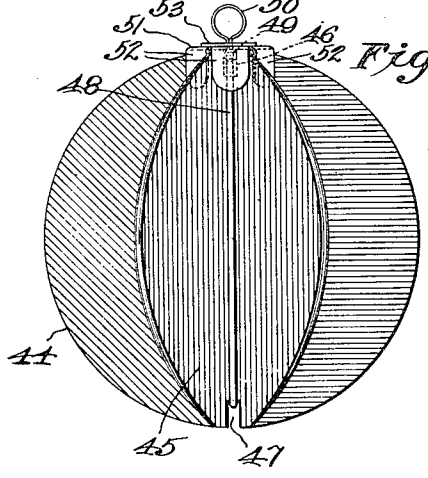


Fig. 16.



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Patented Oct. 30, 1923. 1,472,520

UNITED STATES PATENT OFFICE.

GERHARDT E. GRIMM, OF NEW YORK, N. Y.

ORNAMENT FOR CHRISTMAS TREES OR THE LIKE.

Application filed November 15, 1921. Serial No. 515,255.

To all whom it may concern:

Be it known that I, GERHARDT E. GRIMM, a citizen of the United States, and resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Ornaments for Christmas Trees or the like, of which the following is a specification.

This invention relates to a pendant ornament and more particularly to a pendant ornament for use as a Christmas tree decoration or the like; and has special reference to the provision of an ornament of this nature which combines the features of low cost of production, efficient and low cost of handling and marketing and unique convenience in use and re-use and which forms an attractive, highly pleasing, variegated Christmas tree display unit.

Among the various forms of Christmas tree ornament suggested previously and in use at the present time, the form most commonly marketed and used is that comprising a vitreous shell or ball. As is well known, great care must be taken in the manufacture, packing, shipping and marketing of these balls in view of the excessively fragile character of this type of ornament. These vitreous ornaments must be packed with caution, and where the ornaments are packed in quantities as is usual, special containers or cartons with separating compartments must be utilized, in conjunction with shock absorbing packing material, the cost of packaging being a factor reflected in the ultimate selling price of the product. These glass balls consume, furthermore, considerable space, with the result that shipping or transportation costs thereon are relatively large, with the ultimate selling price of this commodity enhanced thereby. These shells must also be handled with considerable care during the marketing thereof, the loss in breakages being considerable during sale, as is well known. In view of their fragile character, the ornaments are troublesome to handle during decorative use, the frailty and size of the balls requiring, furthermore, careful and special storage when it is desired to store the ornaments away for use on successive Christmas holidays. To provide or produce a Christmas tree ornament in which are embodied the advantageous features of display with the display features rendered in many respects more attractive, and in which the aforementioned disadvantages incident to the manufacture, sale and use of the glass ornaments are successfully eliminated, constitutes a prime desideratum of my present invention.

The principal objects of my present invention may be said to include the provision of a pendant ornament adapted for Christmas tree decorations made in any of a variety of configurations and which may be made to assume various forms to simulate the appearance of or to embody three dimensional objects and which ornaments may be collapsed to assume a substantially two diamensional or flat condition, rendering the same subject to inexpensive packing operations, cheap transportation rates, convenient and inexpensive handling, marketing and storing and the further provision of an ornament of the nature referred to which may be produced at low cost and which will provide a variegated, highly attractive ornamental display.

To the accomplishment of the foregoing and such other objects as may hereinafter appear, my invention consists in the elements and their relation one to the other, as hereinafter particularly described and sought to be defined in the claims, reference being had to the accompanying drawings which show preferred embodiments of my invention and in which:

Figures 1 to 5 show collectively one form my invention may take and the manner of making and using such form.

Figures 6 to 9 show another form of my invention and a different manner of making the same,

Figure 10 shows another modification of my invention exemplifying a different type of configuration and contour imparted to the ornament of my invention, and

Figures 11 to 14 and Figures 15 and 16 show two further modifications of my invention.

As hereinbefore referred to, the prime object of my invention comprehends the provision of an ornament which may be made to assume a three dimensional configuration when desired for decorative use and which may be collapsed to substantially two dimensional condition when not in use as during the marketing or storing period thereof. To this end my invention contemplates a pendant ornament provided with a plurality of wings or leaves movable about a common

axis to assume radial positions in simulation of a solid object, the leaves being movable to flat or collapsed condition. Referring to Figures 1 to 5, which show one form my invention may take both as to the manner of making the same and as to the configuration it may assume; and referring particularly to Figures 4 and 5, the ornament comprises a plurality of leaves or wings a, a', b, b', c and c', the wings being shown radiating from a common axis 10. The leaves or wings are movable to the angularly spaced positions as shown in Figures 4 and 5 and the leaves when they are set in these positions yield an ornament which may simulate a solid object such as a ball or sphere. The leaves are made of such material and are connected in a manner, as will appear further hereinafter, such that the said leaves will "hold" or keep the angularly spaced positions shown in Figures 4 and 5 when so set or spaced by the user or decorator. For packing, shipping, marketing and storing purposes the leaves a, a' and c, c' are turned down to overlie the leaves b, b' on both sides thereof, the overlying wings or leaves presenting a flat commodity such as shown in Figure 3 of the drawings, which may be handled with obvious ease and convenience for marketing and storing purposes.

One manner of making my novel ornament is shown in Figures 1 to 4 of the drawings. Referring to these figures, I first provide a plurality of suitably contoured plate sections of preferably sheet material 11, 12 and 13 made of paper, board or the like, the sheet material being cut in the present form of my invention to preferably disk form; and to each surface of the sheets 11 to 13 I apply or attach a metallic facing of tin or lead foil, the sheet 11 being provided with the sheet foil or facings 11′ and 11^2 attached thereto by a suitable adhesive, sheets 12 and 13 being suitably provided with sheet foil facings 12′ and 12^2, 13′ and 13^2 respectively, the board sheets and foil being shown in Figure 1 before assembly, Figure 2 showing collectively the assembled sheets, such sheets being designated as A, B and C respectively. The paper board or board sheets or plates 11 to 13 are intended to function as stiffening or reinforcing members and I have found that for some uses these stiffening plates or members may be dispensed with, and that the metal foil sheets may be mounted back to back. It is preferred, however, to provide these stiffening members, a more rigid ornament being thereby obtained.

After obtaining the assembled plates or disk shown in Figure 2, I may attach these plates together along a diameter thereof, as shown particularly in Figures 3 and 4; and to this end the plates may be stapled together at spaced points as shown at 14 and 15. With this construction each plate is divided in opposite sectors, with each sector forming wing portions, plate A thereby providing wings a, a' and plates B and C providing, respectively, wings b, b' and c, c', the wing portions being hingedly connected to move about the common axis provided by the staples 14 and 15. I have also found that the sheet board and sheet foil, of which the plates A, B and C are made admirably serve the purpose of providing plates which may be flexed or bent to provide the wing portions, which wing or leave portions will take or "hold" the angularly spaced positions which are given to them in the setting up or "opening up" operation.

In order to facilitate the opening of the leaves and the attaining of symmetrically arranged wings, I have found it desirable to make the stiffening member 12 of the central plate B more rigid than the stiffening members 11 and 13 of plates A and C respectively. With the provision of such a construction the outer plates only are bent or flexed in the "opening up" operation, the central plate resisting central stresses, such a construction having been found easier to open not only, but permitting wings a, a' and c, c' to assume symmetrical positions about the central wings b, b', as particularly shown in Figures 4 and 5 of the drawings.

For suspending the ornament on a Christmas tree or the like the ornament is provided with a suitable suspension element, as a string or cord 16, attached to the ornament in a suitable manner and such that when the ornament is suspended the axis 10 will assume a vertical position. When the ornament is so hung it will be found that the wings or leaves a to c' will act as blades or vanes upon which air currents impinge, the vanes responding to the air currents, causing the rotation of the ornament about the axis 10.

For the purpose of providing a colored and a variegated ornament, the metal foil used for the facings of the plates A, B and C comprises preferably colored foil, with the various faces preferably differently colored. Thus, referring particularly to Figures 3 to 5 of the drawings, the foil face 11′ may be selected as purple in color, the foil face 11^2 as blue, the foil face 12′ as silver, the foil face 12^2 as gold, the foil face 13′ as green and the foil face 13^2 as red, these colors being conventionally illustrated in the drawings and being so designated by legends. With this construction, as the ornament rotates responsive to air currents, the colors of the ornament will be visible successively, thus presenting a highly attractive variegated display. Furthermore, with this con-

struction not only will the different colors provided be successively observable but a variety of colors greater than the number of colors and shades provided will be obtained in view of the facts that when the wings are arranged angularly as shown in Figures 4 and 5 of the drawings and when the ornament is rotated the shades or hues of the colors will change, due to successive double and single reflection and due to the fact that some of the adjacent faces provide different colors. Thus, for example, in the rotation of the ornament, the red will be visible first as a deep red when the wing *c'* reflects light not only directly incident upon it but light reflected from the vane *c*. The shade will change from a deep to a light red when the angle of vision is such that only light directly incident on the wing *c'* is reflected to the eye of the observer. When the adjacent gold and green colored surfaces become visible the green will change from a light to a yellowish green when single reflection is replaced by reflection from the gold surface. The gold surface changes in shade in a similar manner, due to single and double reflection. When the silver and blue adjacent faces become visible the silver will change from a bright silvery color to a reflected light blue resulting from the combination of blue and silver, this being followed by a light blue resulting from the combination of silver and blue and then followed by a deeper hue of blue resulting merely from a direct reflection of the blue surface alone. Thus, with the selection and arrangement of colored surfaces as shown in this form of my invention a very attractive variegated display is presented upon rotation of the ornament when normal air currents in a room are present.

Referring now to Figures 6 to 9 of the drawings, I show another form of my invention taking an oval instead of a circular configuration, the ornament of this form of my invention being made in a slightly different manner. In this form I may first provide a central stiffening member or plate 17 made of paper, board or the like and to this central member 17 I attach by suitable adhesive one sector or wing of plates 18, 19, 20 and 21, the other sector of these plates being left free to provide radial wings, these plates 18 to 21 also comprising sheet paper or board or the like. Before attaching the sectors of these plates to the central stiffening member 17, I provide each of these plates with a metallic facing on one side thereof, thus providing plate 18 with a foil facing 18' and providing, similarly, the plates 19, 20 and 21 with the metallic facings 19', 20' and 21'. After performing these operations I obtain the embryo product shown in Figure 7 of the drawings. After obtaining this article the leaves 18 to 21 are turned down in position overlying the plate 17 and to the uncovered faces of the plates 18 to 21 are attached, as by the suitable adhesive, the lead or tin foil sheets 22 and 23 respectively, the resulting article being shown in Figures 8 and 9 of the drawings. In this construction the sheet material is so contoured as to provide in the resulting article an oval shaped configuration, this being clearly shown in Figure 9 of the drawings. The tin foil coverings of the wings 17 to 21 in this form of the invention are also selected of different colors as shown conventionally in Figure 9 of the drawings, a variegated display being provided when the ornament rotates about the suspending element 24. By attaching the sectors or wings of the plates 18 to 21 to the central stiffening member 17 I provide a construction which eliminates the necessity of stapling the plates together, although I have found that the preferred construction should provide the stapling as shown in Figures 1 to 5 of the drawings. The form of the invention here shown (Figures 6 to 9) provides a convenient article in which the leaves when open to radial position will hold such position until collapsed by the user.

In Figure 10 I show a modified form of my invention exemplifying another configuration which the ornament may take, the form here shown comprising star shaped plates 25 suitably attached together as by the stapling elements 26 and 27, the suspending means comprising a wire element 28 looped to encircle the stapling means 26 and 27, the said wire element being suitably twisted and looped to provide the eye 29 through which may be threaded a suspending cord.

Instead of permanently connecting together the plates from which the radial wings are formed the said plates may be made separable and so sold to the trade, this eliminating the assembling operations and further providing a structure in which a great variety of color combinations may be effected according to the will and taste of the user. Referring to Figures 11 to 14 of the drawings I show such a construction in which plates 30, 31 and 32 (see Figure 14) are made separable and are attachable together as by means of an elastic element 33 strapped or looped about the superimposed plates, suitable notches such as 34 and 35 being provided in each of the plates for receiving the elastic as shown in Figures 13 and 14, these notches being registrable and lying in the common axis about which the wing sectors of the plates may be moved. By the provision of separable plates the user may select any color combination he pleases and connect the blades to suit his own taste.

Where separable blades are used it is de-

sirable to provide means for positively holding the sectors or wings in their radial positions when moved to such positions by the user. To this end, referring to Figures 11 to 14 of the drawings, the central plate 31 is provided with spacing tabs 36, 37, 38 and 39 suitably attached to opposite sides of the plate 31. The attachable portions of the tabs are preferably connected to the stiffening member of the plate 31 and to this end the metal foil facings are provided with slots such as 40, shown in Figure 11, through which the blade portions of the tabs extend. Although the spacing members 36 to 39 are provided in this form of my invention, it is obvious that such spacing members may be also provided in the forms previously described in detail if a very positive positioning of the wings is desired to be effected.

In addition to providing the spacing members, it may be desirable to provide interlocking means to positively lock the vanes or blades in open position and to this end each of the spacing members 36 to 39 is provided with a fin portion 41, each fin portion being received by a suitable slot such as 42 provided in the plates 30 and 32, interengagement of the slots and fins providing desirable interlocking means, the tendency of the vanes or leaves of plates 30 and 32 to move to overlying position with respect to the central plate effecting a secure interlock between these elements and a positive positioning and locking of the vanes in open position.

Referring now to Figures 15 and 16, I show still another modification of the invention in which, instead of the spacing tabs shown in Figures 11 to 14, I provide a spacing member preferably made of metal and separable from the ornament, the spacing member being attachable to the ornament in the assembling of the same during decorative use. Referring still to these figures, I show the provision of detachable plates 43, 44 and 45, these plates being provided with registering notches 46 and 47 about which is strapped the elastic element 48 and to the elastic element 48 I connect one loop 49 of a suspending element 50 and interposed between the suspending element 50 and the loop 49 I provide the spacing element 51, which may comprise a plate provided with a plurality of depending wings 52, the spaces between the wings providing means for receiving the top portions of the leaves of the plates 43 to 45 inclusive. If desired, a suitable washer 53 may be provided between the loop 50 and the plate portion of the spacing member 51. The spacing member in this form of the invention may be cheaply and quickly produced and sold either separately or together with the tin covered plates.

The manner of making and using my novel ornament will be apparent from the above detailed description thereof. In each form of my invention the ornament may be collapsed to assume a condition in the flat such as illustrated in Figures 3 and 13 of the drawings, for example, and the ornament may be packed at low cost without the necessity of exercising any undue care, the ornament being nonbreakable and occupying very little space and being thus capable of being shipped, or mailed if desired, at low cost. The ornament may be marketed without the exercise of the caution and care as is the case in prior ornaments of this kind and may be sold in bulk in a very convenient manner. In the form of the invention shown in Figures 11 to 14, in addition to the collapsibility of the plates, the spacing and locking means is similarly collapsible in the flat, the whole ornament being therefore packageable in very small confines. When desired for decorative use, the user merely opens up the leaves and the ornament will assume the condition as shown in Figures 5 and 9 of the drawings, the vanes or leaves holding their position radially extending from the common axis. If desired, the spacing and holding means shown in Figures 11 to 16 may be used, these spacing and holding means being effective and in fact necessary when separable plates are used. The wings or radial plates of the ornament will act as vanes responsive to air currents, causing the rotation of the ornament on the Christmas tree or other structure on which the ornaments may be suspended, a variegated display which is highly pleasing to the observer being produced. At the end of the holiday season the ornaments may be removed and collapsed to a condition in the flat and so stored until the next Christmas holiday. The ornament may be made in any variety of forms to assume any configuration of a three dimensional object and may be sold suitable to the taste of the dealer and the purchaser.

While I have shown my device in the preferred form, it will be obvious that many changes and modifications may be made in the structure disclosed without departing from the spirit of the invention, defined in the following claims.

I claim:

1. A new article of manufacture for use as a Christmas tree decoration or the like, comprising an ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves being movable from such radial positions to collapsed condition.

2. A new article of manufacture for use as a Christmas tree decoration or the like,

comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves or wings providing color reflecting surfaces.

3. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves or wings providing differently colored surfaces effecting a variegated ornament display.

4. A new article of manufacture for use as a Christmas tree decoration or the like, comprising an ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said wings or leaves including metallic foil faces.

5. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said wings or leaves including metallic foil faces with some of the adjacent foil faces differently colored to effect a variegated ornament display.

6. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves being movable from such radial positions to collapsed condition, the said wings or leaves comprising opposite sector portions of plate members made of sheet material.

7. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves being movable from such radial positions to collapsed condition, the said wings or leaves comprising opposite sector portions of plate members made of sheet material, the plate members comprising flexible stiffening elements oppositely faced with metal foil.

8. A new article of manufacture for use as a Christmas tree decoration or the like, comprising an ornament including a plurality of sections movable relatively to each other to positions about a common axis to produce or simulate a three-dimensional object, the said sections being movable from such positions to collapsed condition.

9. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves radiating from a common axis and simulating the appearance of a three dimensional object, the said wings or leaves being provided with differentiatingly colored surfaces.

10. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves being movable from such radial positions to collapsed condition and means hingedly connecting the wings in a region lying in said axis, the said ornament being adapted to be hung with the axis assuming a vertical position.

11. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensionable object; the said leaves being movable from such radial positions to collapsed condition and means for spacedly holding the wings in their radially assumed or set positions.

12. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves being movable from such radial positions to collapsed condition and means for spacedly holding and locking the wings in their radially assumed or set positions.

13. A new article of manufacture for use as a Christmas tree decoration or the like, comprising an ornament including a plurality of flat sections movable relatively to each other to positions about a common axis to produce or simulate a three-dimensional object, the said sections being movable from such positions to collapsed flat condition.

14. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis

to simulate the appearance of a three dimensional object; the said wings or leaves including metallic foil faces with some of the adjacent foil faces differently colored to effect the variegated ornament display, and means for spacedly holding the wings in their radially assumed or set positions.

15. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves being movable from such radial positions to collapsed condition and means for spacedly holding and locking the wings in their radially assumed or set positions, the said holding and locking means comprising a separable element embodying provisions for suspending the ornament.

16. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume open radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves being movable from such radial positions to collapsed condition, the said wings or leaves comprising sector portions of plate members with the plate members fashioned out of material which will keep or hold the open or collapsed condition at the will of the user.

17. A new article of manufacture for use as a Christmas tree decoration or the like, comprising a pendant ornament including a plurality of wings or leaves movable relatively to each other about a common axis to assume radial positions about such axis to simulate the appearance of a three dimensional object; the said leaves being movable from such radial positions to collapsed condition, the said wings or leaves comprising the sector portions of a central relatively stiff plate section and exterior relatively flexible plate sections.

18. A new article of manufacture for use as a Christmas tree decoration or the like, comprising an ornament including a plurality of wings or vanes faced with colored tin foil effecting a variegated display ornament.

19. A new article of manufacture for use as a Christmas tree decoration or the like, comprising an ornament including a plurality of sections movable relatively to each other to positions about a common axis to produce or simulate a three-dimensional object, the said sections being movable from such positions to collapsed condition, each of the said sections being faced with colored tin foil for effecting a variegated display.

20. In a collapsible ornament, a series of sheets joined along a common axis, and means extending transversely through said sheets for holding them in spaced relation.

Signed at New York city, in the county of New York and State of New York, this 11th day of November, A. D. 1921.

GERHARDT E. GRIMM.