

May 22, 1951 2,554,363 C. F. GLASER ET AL DECORATIVE ARTICLE FOR CHRISTMAS ORNAMENTS

# UNITED STATES PATENT OFFICE

# 2,554,363

## **DECORATIVE ARTICLE FOR CHRISTMAS** ORNAMENTS.

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2 Claims. (Cl. 41-10)

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1 The invention relates to novel and improved decorative articles, and to novel and improved methods and means for making the same. The invention is particularly useful in the manufacture of hanging ornaments such as window decorations, Christmas tree ornaments, or the like.

An object of the invention is to provide novel and improved articles of the nature indicated, which can be fabricated rapidly and cheaply, in they are intended to represent.

A further object is to provide a decorative article in the nature of a Christmas tree ornament which closely simulates the appearance and physical characteristics of a real icicle.

A further object of the invention is to provide a Christmas tree ornament of icicle-like character which is easy to manufacture, and can be sold at low cost, which will last for years, and which is relatively indestructible.

A further object of the invention is to provide a Christmas tree ornament of the character described which can be fabricated in quantity by relatively unskilled personnel.

tion will be immediately apparent, or will appear from a study of the following specification, in conjunction with the accompanying drawings, in which the several figures represent successive steps in the fabrication of an artificial icicle, as 30 follows:

Fig. 1 is a fragmentary side elevational view of a sheet of material being wrapped around a tapered mandrel;

Fig. 2 is a view similar to Fig. 1, but showing 35 the wrapping operation completed;

In Fig. 3 the shaped article has been removed from the mandrel and has been immersed in a vessel containing an air-drying adhesive material of specifically advantageous character, and 40 is thereupon being withdrawn from the vessel.

Fig. 4 shows the embryo icicle being sprinkled with a crystalline substance of light refractive character adapted to reflect light from its crystalline facets, as from ice particles.

Fig. 5 shows the finished article in condition for its intended use.

Before the present invention is described in detail, it is to be understood that the invention here involved is not limited to the specific item 50 or arrangement of parts herein illustrated or described, as the invention obviously may take various forms. It also is to be understood that the phraseology or terminology herein employed

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tation, the scope of the present invention being defined in the appended claims.

As is universally known, practically all decorative articles used up to the present time for Christmas decorations are made from blown glass or like material of extreme thinness. As a result, there is a high breakage loss from dropping the articles, or failing to use a high degree of care in wrapping or packaging them for shipment or such manner as to accurately simulate the object 10 storage. Artificial icicles of such character have surface appearance not at all approximating a genuine icicle in appearance. While the present invention may be used for other purposes, it will be described as adapted to the manufacture of 15 an artificial icicle.

As a basic material we use a mat of fiber glass. Fiber glass is obtainable in many forms, either as thread or fabric woven therefrom, but we prefer matted sheets of uneven texture, sometimes 20 termed glass wool, which can be readily pulled to desired shapes. It is light in weight, and nonflammable.

Referring now to the drawings, a mat of glass wool 10 is wound around the tip portion 11 of a Other objects and advantages of the inven- 25 suitable mandrel or stick which may be of wood, metal, or other suitable material. With a slight amount of practice, the result shown in Fig. 2 may be obtained, the fiber glass cone 12 being secured by a short length of fine flexible wire, or a string or rubber band 13.

The cone 12 is now slipped off the mandrel, and is immersed in a vessel 14 which contains a quick drying adhesive fluid 15 of translucent character, and relatively viscous, so that on removal therefrom the dripping of excess fluid quickly stops. One such fluid, which we normally prefer, consists of a vinyl plastic resin dissolved in methyl isobutyl ketone, and commercially obtainable under the trade designation "E. C. 366" adhesive, the "E. C. 366" designation being a registered trade-mark of the manufacturer. After withdrawal from the adhesive, and while the cone is still moist, it may be sprinkled with a crystalline, granular material of light refractive char-45 acter, such as ground quartz or sodium chloride. as indicated in Fig. 4. This produces a very pleasing visual effect when drying is completed. To obtain a similarly pleasing result, approximately 30 per cent by volume of sodium chloride may be added to the solution of vinyl resin hereinabove disclosed. When the product dries and hardens

it assumes the crystalline appearance desired. After removal from the adhesive solution the

damp cone 12 may be hung up to dry in any conis for the purpose of description and not of limi- 55 venient manner. It will dry rapidly under ordinary room temperature conditions. When dried, the excess material at the upper end may be trimmed off to suit, and conventional attaching devices such as the linkage 17, 18 may be used to suspend it in its intended position on a tree, or  $_5$ otherwise.

The appearance of the final product is only inadequately indicated in Fig. 5, since the glistening light-reflective and light-refractive effects cannot be reproduced in a drawing. The icicle 10 so produced is of light weight, but has sufficient body so that it may even be handled carelessly without injury. A small solidified globule such as indicated at 19, in Fig. 5, usually forms at the lowermost tip during the early drying stages, 15 and conveys the additional illusion of a melting icycle. The final product is flame resistant, and flash proof, since it will burn only very slowly if a flame is applied thereto. It preserves its original form and appearance indefinitely. It can be 20 made to sell at such a reasonable price that it will successfully compete with ornaments heretofore available, but of highly fragile character, and not at all realistic in appearance.

We have described a simple method whereby 25 the decorative articles constituting the present invention can be made by hand. If desirable or necessary, the method may be facilitated by recourse to readily available mechanical aids, but without varying the method in its essentials. 30

A conical mandrel may be chucked in a drill press or lathe, and turned at a moderately high speed, for example 900 to 1500 revolutions per minute. A thin sheet of fiber glass mat is brought into contact with the rotating mandrel and it is 35 immediately wound thereon. The fiber glass cone, so formed, may be slid from the mandrel without stopping the machine.

As a further aid, the cone so formed may be nested in a conical hole of suitable size in a block, 40 and a low gage wire looped around the larger end of the fiber glass cone. The top can then be trimmed and the cone dipped as before.

Mechanical dipping means may be provided Vinylir consisting of an endless conveyor, such as a chain 45 N.Y.C. or belt, carrying hooks upon which the tie wire 4

is looped while the hooks depend from the lower race of the conveyor. The conveyor moves above and adjacent to the upper surface of dipping liquid in an elongated trough. Beyond the trough end the conveyor inclines slightly upwardly to lift the articles from the liquid, and the conveyor then carries the articles above a drip pan at such speed, and for such distance that the drip ceases. At this point an operator lifts the articles from the hooks and places them on a dryer. Two operators, one at each end of the conveyor, can handle a substantial production in this way.

What we claim is:

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1. A decorative article consisting of a fiber glass mass shaped to simulate an icicle, and impregnated with vinyl plastic resin to which has been added about 30 per cent of sodium chloride.

2. A decorative article consisting of a fiber glass mass shaped to simulate an icicle, impregnated with vinyl plastic resin, and having sodium chloride crystals adhesively clinging to its surface.

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### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

Number	Name	
1,784,008	Herrmann	Dec. 9, 1930
1,979,888	Kranz	Nov. 6, 1934
2,103,939	Flanagan	Dec. 28, 1937
2,204,859	Hyatt	June 18, 1940
2,221,194	Keller	Nov. 12, 1940
2,269,185	Dawson	Jan. 6, 1942
2,311,613	Slayter	Feb. 16, 1943
2,367,611	Raymond	Jan. 16, 1945
2,448,114	Olson	Aug. 31, 1948
2,513,565	Johnson	July 4, 1950

#### OTHER REFERENCES

Vinylite Resins, Bakelite Corp. (p. 16), 1947, 45 N.Y.C.: