

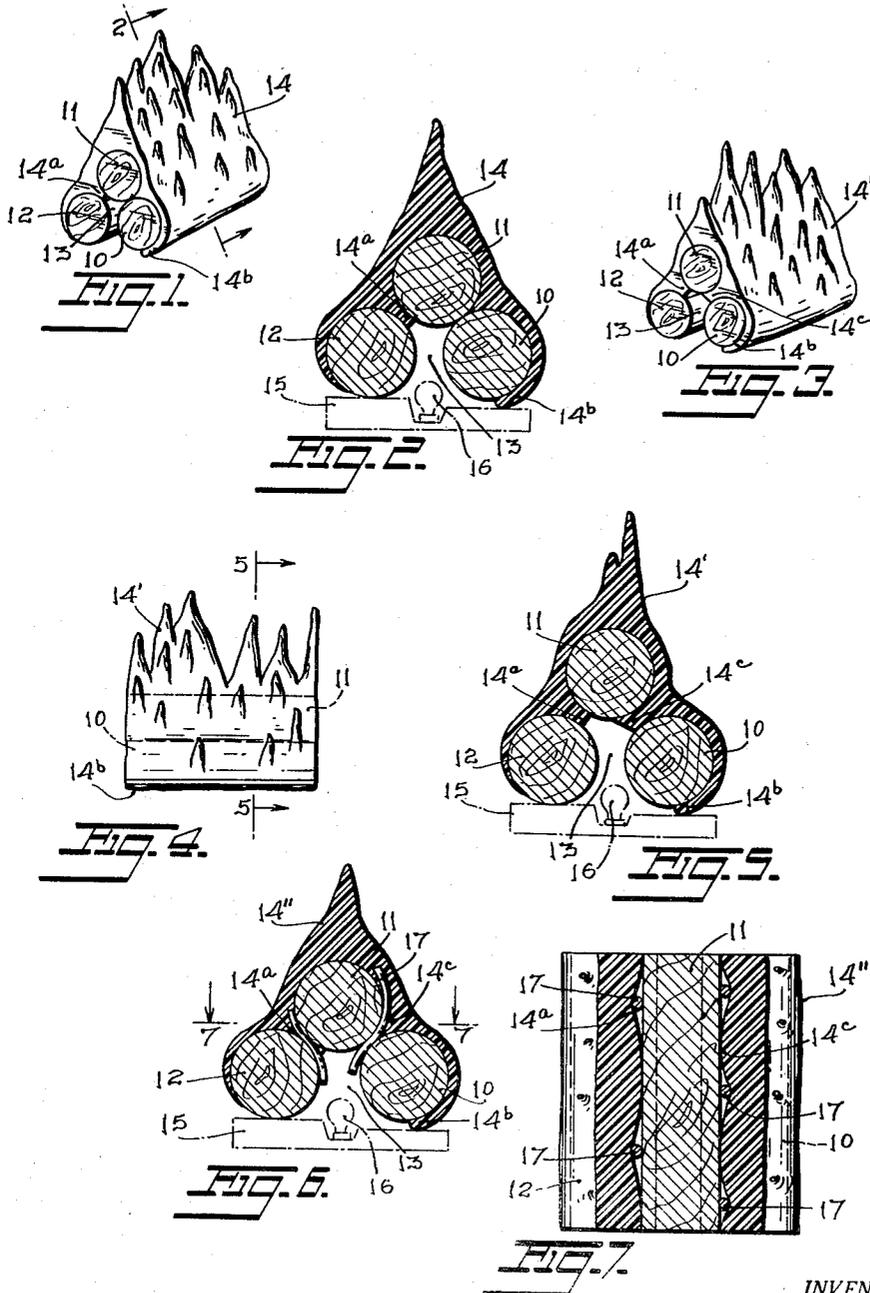
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METHOD OF MAKING AN ARTIFICIAL FLAME LOG ASSEMBLY

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METHOD OF MAKING AN ARTIFICIAL FLAME LOG ASSEMBLY

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This invention relates to new and useful improvements in a method of constructing an imitation flame for use in a fireplace or other similar use. This application is a division of our co-pending application Serial No. 670,005 filed May 15, 1946, now U. S. Patent No. 2,448,906 granted September 7, 1948.

More particularly, the present invention proposes a novel method of constructing an imitation flame from a plurality of parallel superimposed logs joined in a novel method by a resinous plastic material arranged in a manner so that when the assembly is positioned over a light source the resinous plastic material will act to convey the light rays about the logs to illuminate the resinous plastic material throughout giving the appearance of a flame.

Still further, the invention proposes allowing the molten resinous plastic material to drip from the assembly while being applied and during hardening of the resinous plastic material in a manner to provide the resinous plastic material with imitation flame tips.

A further object of the invention proposes so positioning the logs relative to each other that spaces between the logs will be filled with the resinous plastic material during application in a manner to form entrance points for the light rays from the light source located beneath the logs.

Still another object of the present invention proposes coloring the top surface of the resinous plastic material upon completion of its solidification in a manner to produce a completed flame structure which will have a more realistic appearance when illuminated.

Another object of the present invention proposes positioning rods of resinous plastic material between the adjacent faces of the logs in a manner to become embedded in the resinous plastic flame material to assist the same in bending the light rays about the sides of the logs.

It is a further object of this invention to provide a method of constructing an imitation flame for use in fireplaces and other places which is simple and durable and which may be easily carried without the exercise of undue skill.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of an imitation flame constructed in accordance with the method of the present invention.

Fig. 2 is an enlarged vertical sectional view taken substantially on the line 2—2 of Fig. 1.

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Fig. 3 is a perspective view of a modified form of imitation flame constructed in accordance with the method of the present invention.

Fig. 4 is a front elevational view of Fig. 3.

Fig. 5 is an enlarged vertical sectional view taken on the line 5—5 of Fig. 4.

Fig. 6 is a vertical sectional view similar to Fig. 5, but illustrating an imitation flame constructed in accordance with a further modification of the method of the present invention.

Fig. 7 is a horizontal sectional view taken on the line 7—7 of Fig. 6.

The imitation flame, according to the form of the invention illustrated in Figs. 1 and 2 of the drawings, includes three logs 10, 11 and 12 arranged pyramid fashion with a space 13 between the adjacent sides of the two lowermost logs 10 and 12. These logs 10, 11 and 12 might be actual wooden logs cut to the proper length or may be fashioned of a ceramic material or artificially made of any other desired material.

The logs 10, 11 and 12 are joined together in a novel manner by a synthetic resin material 14 fashioned to resemble flames. The assembled construction is adapted to be rested on a base 15, shown in dot and dash lines in Fig. 2, and the base 15 is preferably provided with a source of light 16; such as an electric light bulb, extended into the space 13 between the logs 10 and 12.

The synthetic resin material 14 is preferably the methyl methacrylate polymer or copolymer commercially known as "Lucite" or "Plexiglas"; however, it may be any of the other known synthetic plastic materials having the ability to bend light rays without the rays passing through the side walls of the curved synthetic resin material. The resin material 14 is so applied that it has an end portion 14^a directed toward the light source 16 between the adjacent sides of the logs 11 and 12 and a second end portion 14^b directed toward the light source beneath the log 10. These end portions of the synthetic resin material 14 are adapted to receive the light rays from the light source 16 and convey them about the sides of the logs and illuminate the entire synthetic resin material flame formation.

In forming the imitation flame, the logs 10, 11 and 12 are arranged in pyramid fashion and the synthetic resin material 14 is poured over the logs in a liquid or semi-liquid state. The logs are then inverted and while the liquid synthetic resin material is solidifying it is allowed to drip from the mass thereof forming the desired flame tips. If desired, the formation of the flame tips may be aided by manually shaping the synthetic resin material just prior to the time that it becomes entirely solidified, but this is not absolutely essential, as desirable flame tips have been formed by the dripping resin material without manual formation.

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It has been found that the appearance of the completed imitation flame can be greatly enhanced by coloring the surface of the solidified synthetic material 14 so as to provide an interesting and attractive illusionary pattern.

In the modification of the invention shown in Figs. 3 to 5, the construction of the imitation flame is similar to that previously described, except that the synthetic resin material 14' has a third end portion 14^c directed toward the light source 16 between the adjacent sides of the logs 10 and 11. This additional end portion 14^c aids in illuminating the interior of the flame-like formation.

In other respects this form of the invention is similar to that previously described and like reference numerals identify like parts in each of the several views.

In the modification of the invention shown in Figs. 6 and 7, the construction of the imitation flame is similar to that illustrated in Figs. 3 to 5, except that the synthetic resin material 14'' has its end portion 14^a, between the logs 11 and 12, and its end portion 14^c between the logs 10 and 11 provided with curved rods 17 of synthetic resin material, preferably a synthetic resin material having a different refractive index from the material used for forming the flame formation although, if desired, the same material may be used for the rods. These rods 17 are curved to extend about the log 11 and have their bottom ends extended toward the source of light for directing light rays from the source 16 about the log 11 for aiding in illuminating the interior of the flame-like formation.

The rods 17 may be positioned between the adjacent sides of the logs prior to the application of the synthetic resin material 14'' or may be pressed into the synthetic resin material 14'' while still in a semi-solid state.

In other respects this latter form of the invention is similar to that shown in Figs. 3 to 5 and like reference numerals identify like parts in the several views.

In addition to methyl methacrylate other substances which have been found suitable for the formation of the flame or the rods 17 in the form of the invention disclosed in Figs. 6 and 7, are ethyl cellulose, polyethylene, vinylidene chloride, any transparent plastic celluloid or any other transparent organic or inorganic polymer.

From the foregoing description it is apparent that a very attractive product producing the desired effect can be readily made in accordance with this invention, and that the resulting product is inexpensive and can be made with a minimum expenditure of time and effort from relatively inexpensive and readily available machinery and raw materials.

While we have illustrated and described the preferred embodiments of our invention, it is to be understood that we do not limit ourselves to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described our invention, what we claim as new, and desire to secure by United States Letters Patent is:

1. A method of making an artificial flame log assembly, which consists in arranging a plurality of logs pyramid fashion, leaving a space between the adjacent sides of the lowermost logs for a source of light, applying a synthetic resin mate-

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rial to the logs in a liquid or semi-liquid state, inverting the logs and allowing the synthetic resin material to drip therefrom while solidifying to form flame tips, and coloring the surface of the solidified synthetic resin material.

2. A method of making an artificial flame log assembly, which consists in arranging a plurality of logs pyramid fashion, leaving a space between the adjacent sides of the lowermost logs for a source of light, applying a synthetic resin material to the logs in a liquid or semi-liquid state, inverting the logs so that the synthetic resin material will drop therefrom while solidifying to form flame tips, and coloring the surface of the solidified synthetic resin material, and shaping the flame tips manually while the synthetic resin material is solidifying.

3. A method of making an artificial flame log assembly, which consists in covering a log structure with a viscous liquid material, bringing said liquid material into an almost rigid plastic state while it is slowly dripping from said log structure, and forming the material remaining on said log structure to make it even more flame-like in shape.

4. A method of making an artificial flame log assembly, which consists in covering a log structure with a viscous liquid material, bringing said liquid material into an almost rigid plastic state while it is slowly dripping from said log structure, forming the material remaining on said log structure to make it even more flame-like in shape, and covering said shaped structure with coloring matter to give it flame coloring.

5. A method of making an artificial flame log assembly, which consists in covering a log structure with a viscous liquid material, bringing said liquid material into an almost rigid plastic state while it is slowly dripping from said log structure, and forming the material remaining on said log structure to make it even more flame-like in shape, and interspersing rods of synthetic plastic material into the main body of plastic material.

6. A method of making an artificial flame log assembly, which consists in covering a log structure with a viscous liquid material, bringing said liquid material into an almost rigid plastic state while it is slowly dripping from said log structure, and forming the material remaining on said log structure to make it even more flame-like in shape, and interspersing rods of synthetic plastic material into the main body of plastic material, the length of said rods being parallel to the plane of the round cross-section of the logs in said structure.

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