

Feb. 24, 1925.

1,527,596

E. M. MacCARTNEY
ILLUMINATED DECORATIVE DEVICE

Filed Jan. 3, 1922

2 Sheets-Sheet 1

Fig. 1.

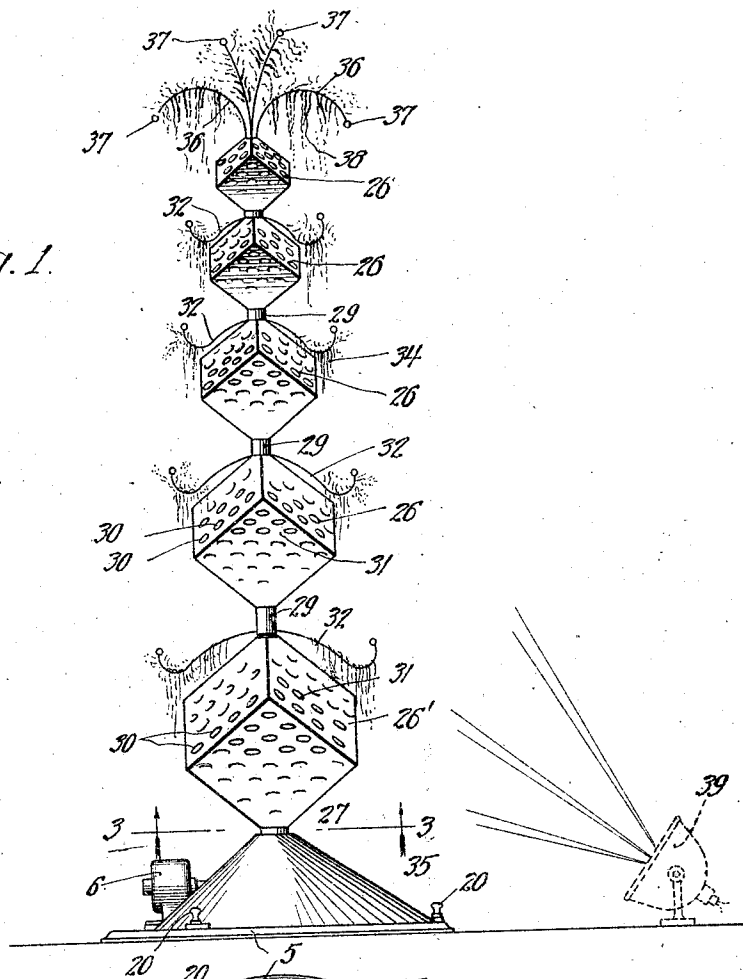
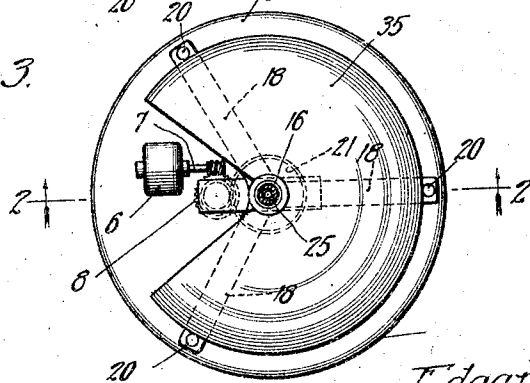


Fig. 3.



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2 Sheets-Sheet 2

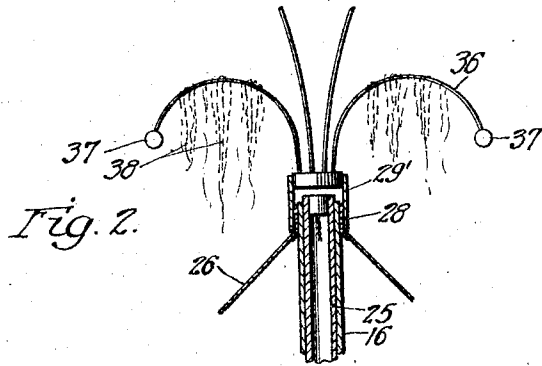
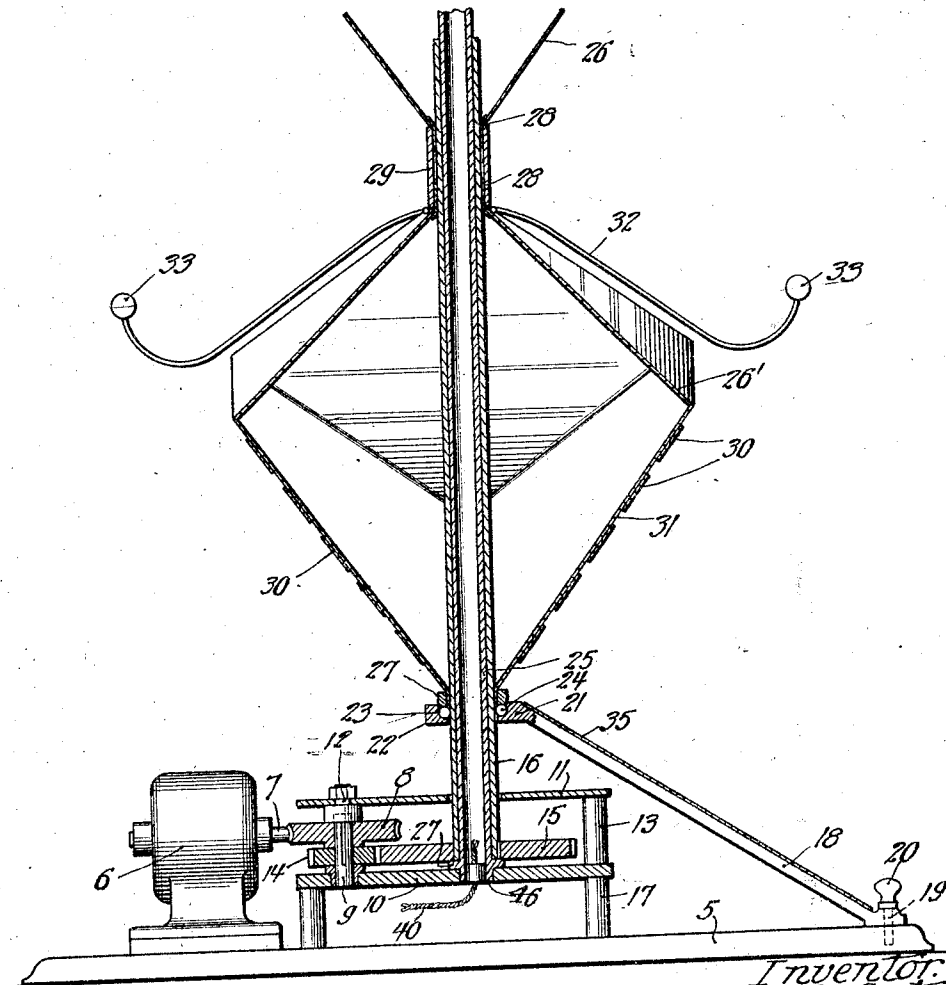
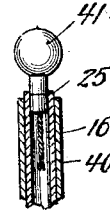


Fig. 4.



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UNITED STATES PATENT OFFICE.

EDGAR MOORE MACCARTNEY, OF CHICAGO, ILLINOIS, ASSIGNOR TO BOTANICAL DECORATING CO., OF CHICAGO, ILLINOIS.

ILLUMINATED DECORATIVE DEVICE.

Application filed January 3, 1922. Serial No. 526,675.

To all whom it may concern:

Be it known that I, EDGAR MOORE MACCARTNEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Illuminated Decorative Devices, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to an illuminated decorative device, and more particularly to a device of this character which is provided with reflecting surfaces for reflecting light from a source of light placed adjacent thereto.

It is a purpose of the invention to provide a plurality of rotatable members arranged in vertical relative relationship to each other, said members rotating with a common shaft and being driven by any suitable driving means, and to provide decorated surfaces for said members comprising preferably a plurality of small reflecting members placed on the outer surface of the rotatable means.

It is particularly a purpose of the invention to provide a decorative device as used in show windows or for other display purposes which comprises a plurality of cubes mounted on a vertically extending shaft, said cubes decreasing in size from the bottom toward the top of said shaft and being provided with reflecting members on the outer surfaces thereof, which are adapted to reflect the light from any suitable source so as to produce a pleasing effect on the eye as the cubes are rotated with the shaft. Said cubes are preferably mounted so that the shaft passes through diagonally opposite corners of the cubes, and for certain purposes, such as for Christmas decorations, suitable flexible members may be secured to the rotating portions of the device so as to rotate with said cubes, said flexible members being preferably provided with decorative material, such as tinsel, depending therefrom.

It is also a purpose of the invention to provide a stationary hollow shaft-like member within said rotating shaft, which is also

tubular so that the upper end portion of the device may be finished off in any desired manner with the decorative member at the upper end thereof either rotating with the other parts of the device or remaining stationary, this being possible with the stationary inner tubular member. The inner tubular member also may serve as a conduit for carrying conductors from a source of current to a lighting device, which may be placed in the top of the illuminated device.

It is another purpose of the invention to provide new and improved means for spacing the members mounted on the shaft, said members being preferably in the form of spacing sleeves between the cubes mounted on said shaft.

Other objects and advantages of the invention will appear as the description of the accompanying drawings proceeds. However, I desire to have it distinctly understood that I do not intend to limit myself to the exact details shown or described, but that I intend to include as part of my invention all such obvious changes and modifications of parts as would occur to a person skilled in this art, and as would fall within the scope of the claims.

In the drawings:

Fig. 1 is a side elevation of my improved decorated device showing a source of light used in conjunction therewith;

Fig. 2 is a vertical sectional view of said device, partly broken away taken on the plane 2—2 of Fig. 3, said section passing through a diagonal of the cubes;

Fig. 3 is a section taken on the line 3—3 of Fig. 1; and

Fig. 4 is a fragmentary detail vertical sectional view of the upper end of the device with a modified form of finishing means for the top of the device.

Referring in detail to the drawings, the improved decorative device comprises a base member 5 upon which is mounted a motor 6, which is provided with a worm on the shaft 7 thereof engaging with the gear 8 mounted on the shaft 9 between the plates 10 and 11, which are secured together by means of the bolts 12 and spaced by the spacing sleeves 13. Carried on the shaft 9

is a gear 14 meshing with the gear 15 mounted on the hollow shaft 16, so that the rotation of the shaft of the motor will rotate the shaft 16 through said gear. The plate 10 is mounted on the base 5 in any suitable manner, as for example, on the standards 17. The base portion 5 is provided with a framework mounted thereon which comprises the legs 18 extending at an acute angle to said base and secured thereto by means of the bolts 19 provided with the knobs 20 for decorative purposes. The legs 18 radiate from a ring-like central portion 21, which is provided with a circular opening 22 and with a ball race 23 for receiving the bearing balls 24. The shaft 16 extends through the opening 22, said shaft 16 being hollow and having mounted within the same the stationary tubular member 25 which is secured to the plate 10 in any suitable manner, as by means of the screw threads 46. A spacing member 27 is provided between the member 10 and the gear 15 on said member 25. The tubular member 25 is stationary and extends from top to bottom of the device. The shaft 16 also extends the full length of the device.

Mounted on the shaft 16 to turn therewith are a plurality of cubes or other similar closed figures 26. The lowermost cube 26' is provided with a ring 27 at the lower end thereof that rests on the member 21. The upper end portion of the member 26' and the opposite ends of the other members 26 are provided with sleeve-like tubular members 28 which are secured to the members 26 and 26' so as to be rigid therewith. The members 28 fit snugly on the shaft 16 so that the cubes turn therewith.

Mounted between the cubes 26 at their adjacent ends and surrounding the tubular members 28 are the spacing sleeves 29. The members 26 and 26' are provided with the sleeve-like extensions 28 at diagonally opposite corners thereof, said members 26 and 26' being preferably in the form of cubes, or other rectangular solid figures. The outer surface of the cubes may be decorated in any desired manner. Preferably said surfaces are decorated with a plurality of mirrors 30, which are shown in the drawings as being circular in form. The mirrors are arranged preferably in rows as shown in the drawings, and are spaced from each other so as to provide small reflecting surfaces. The mirrors are imbedded in a material shown at 31 which is preferably roughened on its surface, but which has particles therein that also reflect the light. To further increase the decorative effect of the device, flexible members 32 are provided which extend about the sleeves 29 adjacent the cubes directly below said sleeves. The sleeves 29 are made so as to fit tightly on the sleeves 28, so that the members 32 will turn with the

sleeves 29 and with the cubes 26 and 26'. The ends of the members 32 are provided with knobs 33 to finish off the same, and tinsel or other decorative material reflecting the light, as shown at 34, is hung over the members 32. The members 28 are secured to the material from which the cubes are made in any suitable manner, as by cementing or soldering the same thereto, the cubes being hollow as will be clear from Fig. 2. The framework comprising the members 18 and the ring 21 is covered by means of a sheet metal covering member 35 so as to hide the mechanism mounted on the base member 5. The upper end portion of the shaft 16 carries the sleeve 29', similar to the spacing sleeves between the cubes, and in this sleeve-like member are mounted the flexible members 36 which carry the balls 37 on the ends thereof, and which are provided with tinsel or other suitable light reflecting decorative means 38. As the sleeve 29' turns with the cubes and with the members 32 the bush-like cluster of members 36 will also turn with said cubes, said members giving the appearance of the branches of a tree or similar member. Light from any suitable source, such as the spot light 39, may be thrown on the device, colored lights being used if desired. The light will be reflected from the various reflecting surfaces on the cubes, and the light reflecting material on the flexible members 32 and 36.

It will be noted that the tubular member 25 extends upwardly so as to project slightly beyond the end of the shaft 16. Said tubular member is provided with the electrical conductors 40 which extend up through the same, and which are adapted to supply electrical current to a light bulb 41 which is mounted in the end portion of the member 25, and is accordingly adapted to remain stationary, while the other parts of the device turn. Any other decorative or lighting means may be substituted for the light at 41, if it is desired to keep the means at the upper end of the device stationary, while any other decorating means may be inserted in the sleeve-like member 29', so as to turn therewith if it is desired, due to the same turning with the cubes of the device.

It will be evident from the above that a device is provided which will produce a very pleasing effect on the eye when light is thrown on the same. It will be understood, of course, that the light may be thrown from a controlled source of current, such as the spot light 39, or that light may be obtained from any lighting means within a reasonable range of the decorative device. Having thus described my invention, what I desire to claim and secure by U. S. Letters Patent is:

1. A device of the character described comprising a shaft, means for rotating said

shaft, and a plurality of polyhedrons mounted on said shaft to rotate therewith, said polyhedrons each having a plurality of plane light reflecting members mounted on the faces thereof.

2. A device of the character described comprising a shaft, means for rotating said shaft, and a cube mounted on said shaft to rotate therewith, said cube having a plurality of plane light reflecting members mounted on each of the faces thereof.

3. A device of the character described comprising a shaft, means for rotating said shaft, and a cube mounted on said shaft to rotate therewith, said cube having a plurality of plane light reflecting members mounted on each of the faces thereof, said shaft extending through diagonally opposite corners of said cube.

4. A device of the character described comprising a shaft, means for rotating said shaft, and a cube mounted on said shaft to rotate therewith, said cube having a plurality of spaced mirrors mounted on each of the faces thereof.

5. A device of the character described comprising a shaft, means for rotating said shaft, and a cube mounted on said shaft to rotate therewith, said cube having a plurality of spaced mirrors mounted on each of the faces thereof, said shaft extending through diagonally opposite corners of said cube.

6. A device of the character described comprising a shaft, means for rotating said shaft, a plurality of polyhedrons mounted on said shaft to rotate therewith, said polyhedrons having a plurality of light reflecting members mounted on the faces thereof, a plurality of flexible members extending laterally from said shaft, and light reflecting material depending from said flexible members.

7. A device of the character described comprising a base member, a tubular member fixed on said base and extending vertically upward therefrom, a tubular shaft embracing said tubular member, a bearing in said base member for said shaft and driving means for rotating said shaft, said shaft having a plurality of cubes of graduated size mounted thereon to turn therewith.

8. A device of the character described comprising a base member, a tubular member fixed on said base and extending vertically upward therefrom, a tubular shaft embracing said tubular member, a bearing in said base member for said shaft and driving means for rotating said shaft, said shaft having a plurality of cubes of graduated size mounted thereon to turn therewith, said shaft passing through diagonally opposite corners of said cubes.

9. A device of the character described

comprising a base member, a tubular member fixed on said base and extending vertically upward therefrom, a tubular shaft embracing said tubular member, a bearing in said base member for said shaft and driving means for rotating said shaft, said shaft having a plurality of cubes of graduated size mounted thereon to turn therewith and spacing sleeves on said shaft between said cubes.

10. A device of the character described comprising a base member, a tubular member fixed on said base and extending vertically upward therefrom, a tubular shaft embracing said tubular member, a bearing in said base member for said shaft and driving means for rotating said shaft, said shaft having a plurality of cubes of graduated size mounted thereon to turn therewith, said cubes having a plurality of spaced mirrors on each of the faces thereof.

11. A device of the character described comprising a base member, a tubular member fixed on said base and extending vertically upward therefrom, a tubular shaft embracing said tubular member, a bearing in said base member for said shaft and driving means for rotating said shaft, said shaft having a plurality of cubes of graduated size mounted thereon to turn therewith, the cube at the upper end of said shaft having a socket member adapted to receive decorative devices mounted thereon to turn therewith.

12. A device of the character described comprising a base member, a tubular member fixed on said base and extending vertically upward therefrom, a tubular shaft embracing said tubular member, a decorative device thereon, a bearing in said base member for said shaft and driving means for rotating said shaft, said fixed tubular member having an electrical conductor passing endwise therethrough and being adapted to receive a light in the upper end thereof.

13. A device of the character described comprising a base member, a tubular member fixed on said base and extending vertically upward therefrom, a tubular shaft embracing said tubular member, a decorative device thereon, a bearing in said base member for said shaft and driving means for rotating said shaft, said fixed tubular member being open at the upper end thereof to form a socket for receiving decorative means.

14. A device of the character described comprising a cube having plane light reflecting members mounted on the faces thereof, means for mounting said cube for rotation and means for rotating said cube.

15. A device of the character described comprising a cube having plane light reflecting members mounted on the faces thereof, means for mounting said cubes for ro-

tation about a diagonal axis of said cube, surface being roughened and means for rotating said cube.
and means for rotating said cube.

16. In a device of the character described In witness whereof, I hereunto subscribe 10
a rotatable decorative cube having a plurality of small mirrors mounted in spaced my name this 23rd day of December A. D.,
5 relation on the faces thereof and a light reflecting surface between said mirrors, said 1921.

EDGAR MOORE MacCARTNEY.