F. Z. HANSCOM.

SIGN OR ADVERTISING DEVICE.

APPLICATION FILED MAR. 13, 1911. RENEWED SEPT. 14, 1914.

1,136,873.

Patented Apr. 20, 1915.

2 SHEETS—SHEET 1.

Fig. 1

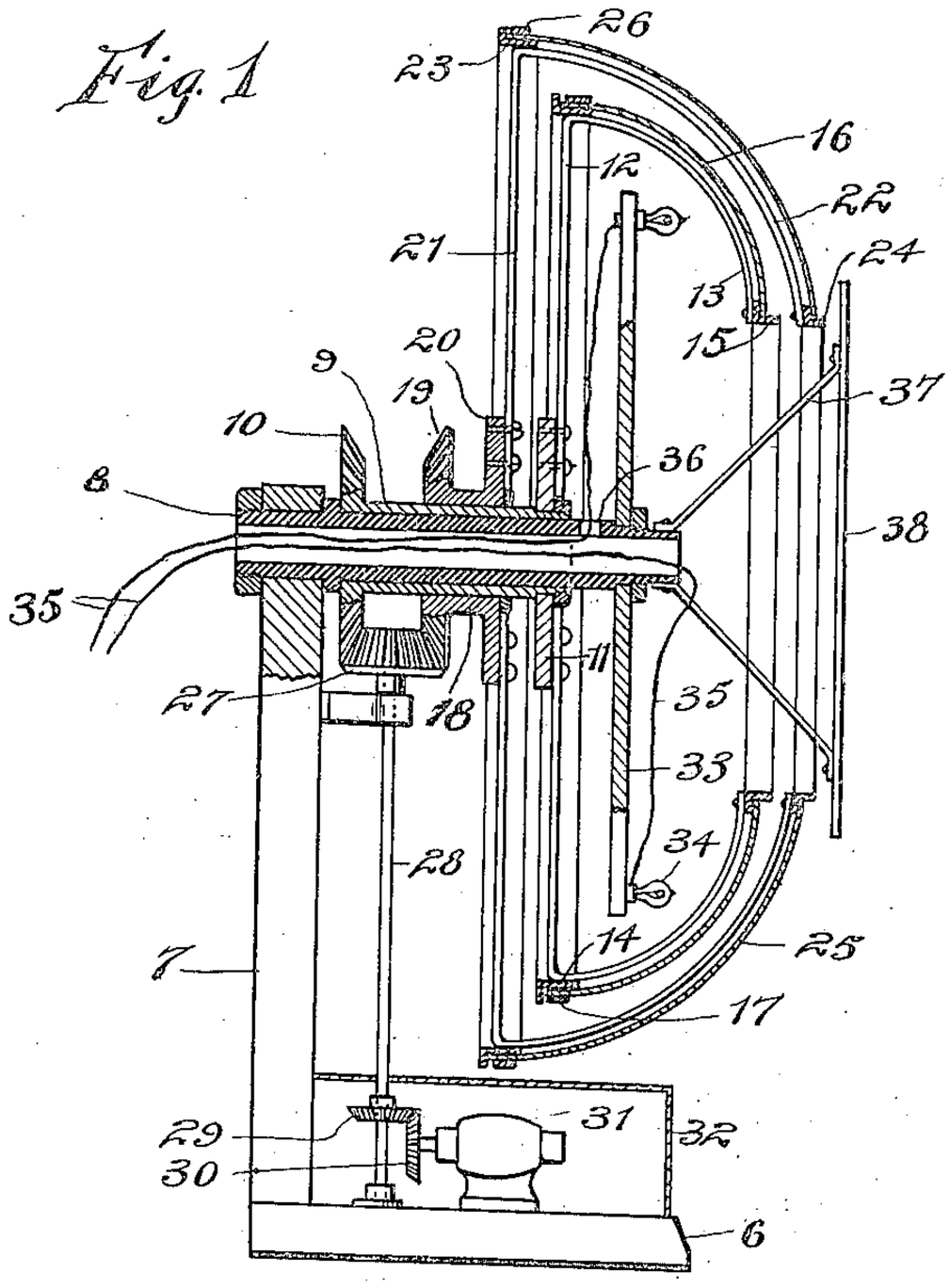


Fig. 2

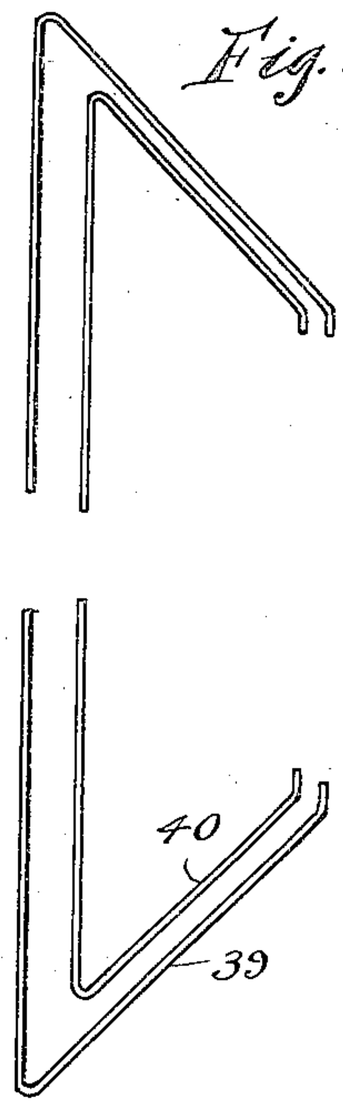
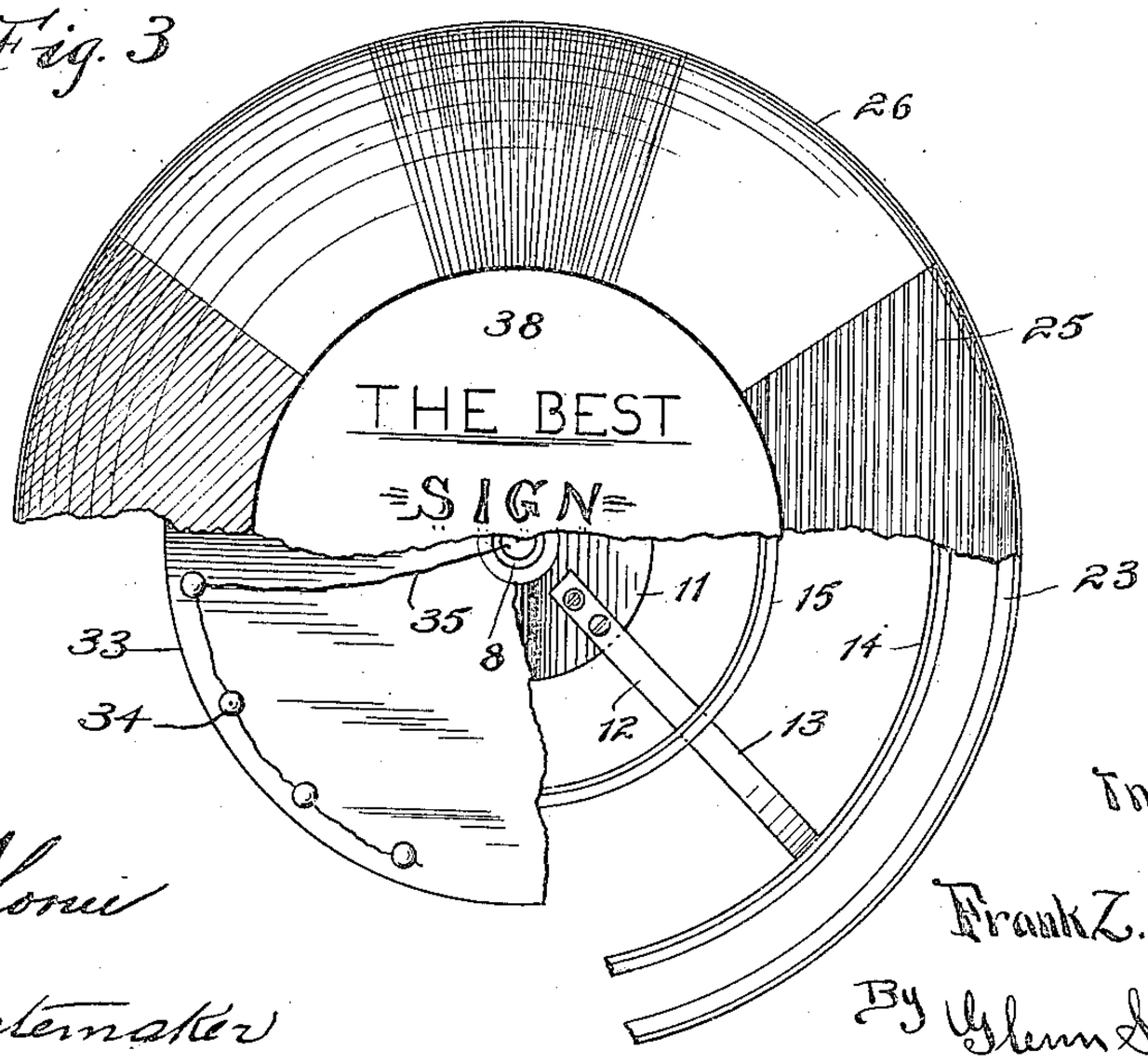


Fig. 3



Witnesses:

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2 SHEETS—SHEET 2.

Fig. 4

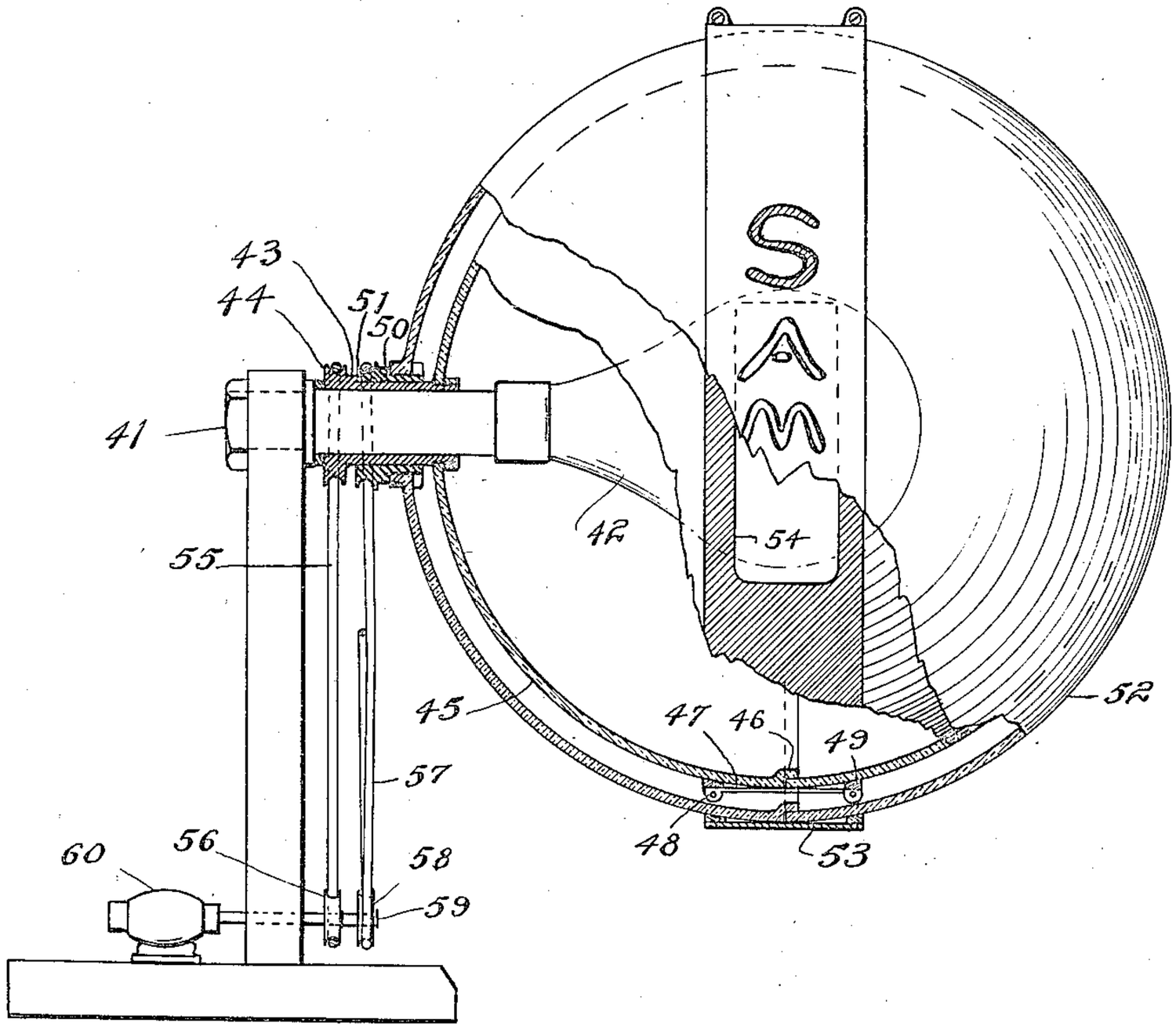
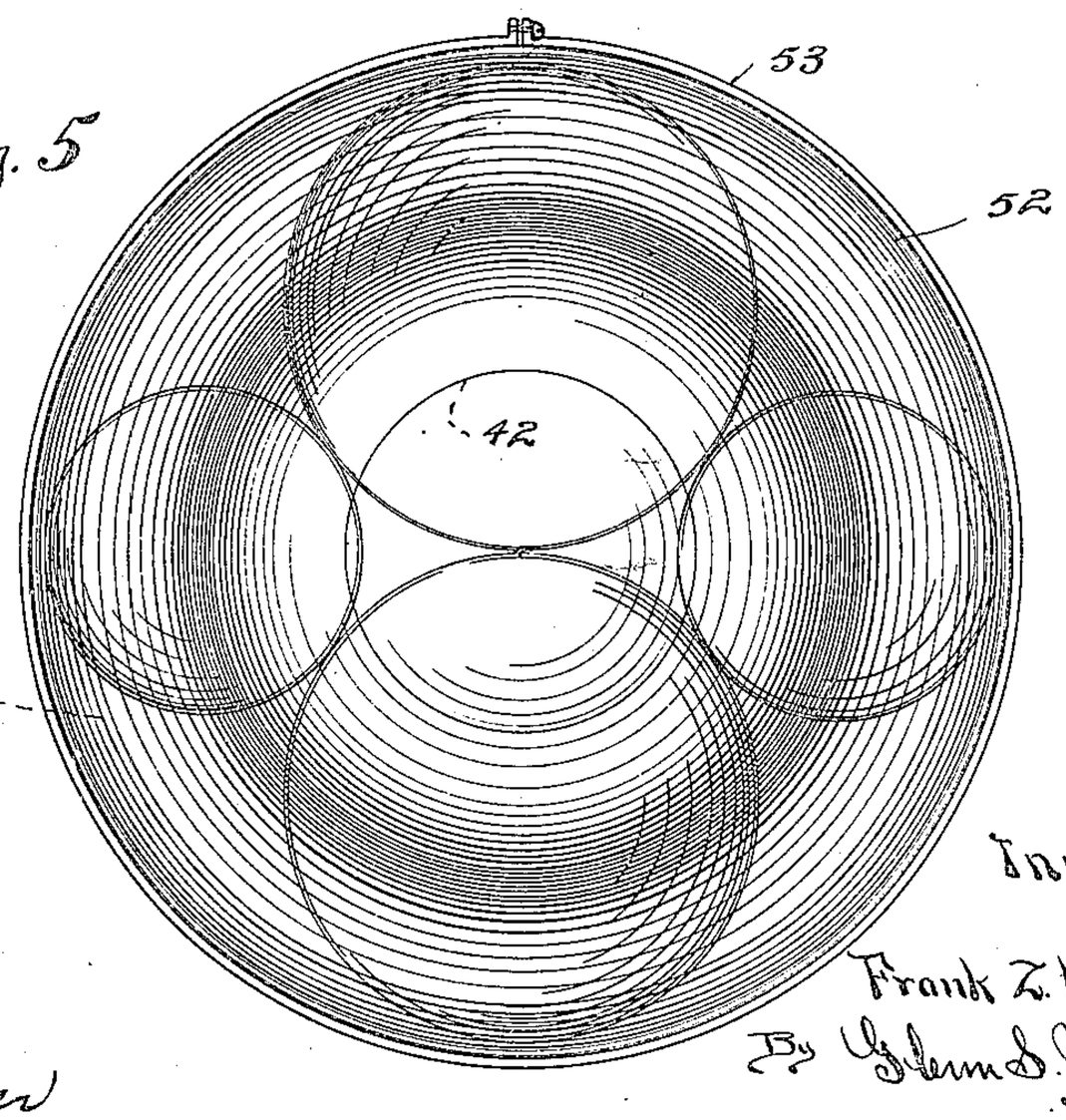


Fig. 5



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UNITED STATES PATENT OFFICE.

FRANK Z. HANSCOM, OF CHICAGO, ILLINOIS.

SIGN OR ADVERTISING DEVICE.

1,136,873. Specification of Letters Patent. Patented Apr. 20, 1915.

Application filed March 13, 1911, Serial No. 614,224. Renewed September 14, 1914. Serial No. 861,706.

To all whom it may concern:

Be it known that I, FRANK Z. HANSCOM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Signs or Advertising Devices, of which the following is a specification.

This invention relates to devices or apparatus for attracting attention to signs, advertising matter, or displays, by the production of peculiar lighting or visual effects produced through the movement of transparent or translucent plates or disks, or peculiarly formed rotating members, preferably in connection with lights or lamps, although the device may also be used in some instances without such lights.

The objects of my invention are to produce a simple and inexpensive device for attraction purposes, which will be adapted for making numerous changes in the lighting or visible effects produced by the movement of the parts, with comparatively little expense; to provide a machine or device adapted for producing novel or startling effects; and, in general, to provide a machine having the novel features of construction and advantages in operation which will appear fully in the following description.

In the accompanying drawings illustrating my invention—Figure 1 is a side view, partially in elevation and partially in section, showing a preferred form of my machine; Fig. 2 is a detail view showing a modified form of supporting arms; Fig. 3 is a front view, with parts broken away to show the interior construction; Fig. 4 is a side view showing a modified form of construction, with parts broken away to show the interior arrangement; and Fig. 5 is a front view of the device shown in Fig. 4.

As illustrated in these drawings, 6 indicates a base or support having an upright stand 7 in which is rigidly secured a hollow spindle or shaft 8. A second hollow shaft or sleeve 9 is rotatably mounted on the shaft 8 and is provided at one end with a bevel gear 10. A disk 11 is mounted on the opposite end of the sleeve 9, this disk being provided with outwardly extending arms 12, which arms are provided with forwardly and inwardly curved extensions 13. A ring 14 is secured to the outer ends of the radial portions of the arms 12, and a ring 15 is secured to the inner ends of the curved portions 13. These rings are adapted to support one of the disks or curved annular rings 16 used for producing the peculiar light effects, or supporting any other suitable plates or members which may be desired for this purpose. I prefer to make the curved annular ring 16 of gelatin, celluloid, paper, or other suitable transparent or translucent material, and to make the ring of variegated colors, or with different designs thereon, as may be desired. This ring or plate is held in position by means of a band 17, which fits closely over the outer edge thereof and binds the ring or plate against the ring 14, as indicated.

A third hollow shaft or sleeve 18 is rotatably mounted on the sleeve 9, and is provided at one end with a bevel gear 19 having its face opposed to the face of the gear 10. This sleeve 18 is provided at the outer end with a disk 20 having outwardly extending arms 21, the outer ends of these arms being provided with inwardly curved extensions 22 passing over and around the extensions of the arms 12 and the parts carried thereby. The arms 21 and their extensions 22 are connected with rings 23 and 24 for holding a second curved annular ring or plate 25, similar in character to the plate 16, this last-named plate being held in position by means of a band 26, this plate also being preferably provided with different colors or designs in order to produce various light effects, as will be presently described.

A pinion 27 meshes with the gears 10 and 19 so as to drive these gears in opposite directions. This pinion is mounted on a shaft 28, which is driven through the medium of gears 29 and 30, from a motor 31 or any other convenient source of power. This motor and last-named gearing are preferably inclosed by means of a casing 32. At the front end of the stationary tube or spindle 8 is a light disk or support 33, preferably carrying any desired number of electric lights 34. The supply wires 35 for these lights may be brought in through the tube or spindle 8 and passed in front of the board or plate 33, out to the lamps, or may be carried through holes 36 in the sides of the spindle and out back of the board to the lamps. The front of the board or disk 33 is

preferably made so as to reflect the light and throw it out through the movable, rotatable members 16 and 25. The movable members 16 and 25 may extend inwardly as far as desired, but I prefer to leave an opening through the centers thereof, sufficiently large to permit arms 37, fastened to the ends of the spindle 8, to extend out in front of the rotatable member 25 and support a board or plate 38 upon which may be placed advertising matter, if so desired.

The operation and effect of an apparatus made in accordance with my invention will be readily understood and appreciated by those skilled in the art. With the shafts or sleeves 9 and 18 driven in opposite directions through the medium of the gearing and motor, the arms 12 and 21, with their connected parts, will be driven in opposite directions. This causes the colored or fancifully formed or decorated, curved annular disk 16 to pass behind the similarly formed disk 25, and the light from the lamps 34 will be thrown out through these oppositely rotating members. By suitably coloring these rotating members, and if necessary, providing lamps of different colors, light effects may be produced, giving all the shades of the spectrum or the glories of the setting sun. The passer-by, seeing this magnificent display, will have his attention called to the advertising matter on the disk or board 38, which is one of the principal objects to be accomplished. It will be observed that a large number of the disks or rotatable members 16 and 25 of different colors or with different designs thereon may be provided, which members may be quickly and easily changed in order to produce new or different light effects. It will also be observed that instead of the curved forward projections of the rotating arms, these may be made straight, as indicated by the projections 39 and 40, Fig. 2, or may be made in any other desired form and the rotatable colored film or sheet made in a similar form and secured thereto as above described.

In the modified form of construction shown in Figs. 4 and 5, the hollow shaft or spindle 41 is provided at its inner end with a socket for a lamp 42. On the shaft 41 is mounted a sleeve or tube 43 having a pulley 44 at one end and carrying a globe or sphere 45 at its opposite end. This globe or sphere incloses the lamp 42, and in order that it may be readily constructed and assembled, is made in two parts, preferably meeting in an overlapping joint, as indicated at 46. These two parts are further held together by means of a band 47, the ends of this band being clamped or drawn together by means of screws 48. Resilient washers 49 are placed between the edges of the band 47 and the globe 45, in order that the clamp or band may hold the two halves securely together. The globe 45 may be made of any suitable material, but I prefer to make the same of glass, and color or decorate the same in various ways in order to produce different effects.

A second rotatable sleeve or tube 50 is mounted on the sleeve 43 and carries at one end a pulley 51, while at the opposite end it carries a globe or hollow sphere 52, similar in construction to the globe 45 and having a clamping band 53 around the same, preferably arranged opposite to the band 47. These bands may be made of metal and provided with different designs or advertising matter which may be visible part of the time and covered at other times. For instance, the outer band 53 may be cut through to form letters, as indicated, while the inner band 47 is cut away at different points, as indicated at 54, the arrangement being such that when the cut-away portions come opposite the letters, they will be visible on account of the light shining through, but at other times the light will be cut off. The globes or hollow spheres 45 and 52 may be driven in the same direction at different speeds, but are preferably driven in opposite directions through the medium of a straight belt 55 which connects the pulley 44 with a driving pulley 56 and a cross belt 57 which connects the pulley 51 with a driving pulley 58. The driving pulleys 56 and 58 are mounted on a shaft 59 driven by means of a motor 60 or from any other convenient source of power.

It will be readily observed that by having the inner globe 45 colored in various designs and forms and the outer globe also of variegated hues and these globes rotating in opposite directions, very striking and pleasing light effects may be produced. The coloring of these globes may be changed, or different globes provided, so as to give an entirely different effect to the display device, and different bands may be provided also having different lettering or different display matter arranged thereon, thus further increasing the variety.

It will be readily apparent that my improved sign or apparatus for attracting the eye may be readily changed in various ways without departing from the spirit of this invention, and therefore I do not wish to be limited to the exact construction or design herein shown and described, except as specified in the appended claims, but—

What I claim and desire to secure by Letters Patent is:

1. In a sign or advertising device, the combination of a support, a tubular spindle rigidly secured to said support, a rotating sleeve on said spindle, a second rotating sleeve on said first-mentioned sleeve, means for turning said sleeves, lights supported from said spindle, and rotating members

secured to said sleeves and extending over in front of said lights.

2. In an advertising or display apparatus, the combination of a support, a hollow spindle mounted in said support, a sleeve rotatably mounted on said spindle, a second sleeve rotatably mounted on said first-named sleeve, means for turning said sleeves in opposite directions, a lamp support secured to the front end of said spindle, lamps on said support, arms connected with the first-named spindle and extending around and in front of said lamps, arms connected with said second-named spindle and extending out and around said last-named arms, and bands supported by said arms, said bands being colored or provided with designs to affect the light from said lamps.

3. In an apparatus of the character set forth, the combination of a stationary tubular spindle, a reflector mounted on the free end of said spindle, lamps arranged in front of said reflector, arms extending forwardly from said spindle, a plate for receiving advertising or the like, supported by said arms, a sleeve mounted on said spindle, behind said reflector, arms extending out from said sleeve and curved inwardly in front of said reflector, rings supported by said arms, an annular band of material through which light may pass, carried by said rings, a second sleeve mounted on said first-named sleeve, arms extending out from said second sleeve, said arms being bent forwardly and inwardly over the arms carried by said first-named sleeve, rings secured to said last-named arms, an annular ring of material through which light may pass, carried by said rings, gears on said sleeves, a pinion meshing with said gears for turning them in opposite directions, and means for turning said pinion.

4. In an apparatus of the character set forth, the combination of a stand or support, a hollow spindle rigidly secured at one end to said support, a light board mounted at the free end of said spindle, lamps on said board, electric supply wires for said lamps, passing through said spindle, a disk for receiving advertising or the like, supported from said spindle in advance of the light board, a sleeve on said spindle, at the rear of said light board, arms projecting from said spindle around said board, the inner free ends of said arms extending inwardly behind said disk, rings carried by said arms, an annular band of transparent material carried by said rings, means for securing said band in position, a second sleeve mounted on said first-named sleeve, at the rear of said arms, arms on said second-named sleeve, extending out and around the arms of the first-named sleeve, the inwardly extending ends of said last-named arms projecting inwardly behind said disk, rings carried by said last-named arms, an annular band of transparent material carried by said rings, means for holding said band in position, oppositely disposed beveled gears on said sleeves, a pinion engaging with said gears, and means for turning said pinion.

5. In a sign or advertising device, the combination of a stationary hollow spindle, a support for one end of said spindle, electric lamps supported from the free end of the spindle, wires leading through said spindle to said lamps, rotatable sleeves fitting one within another mounted on said spindle, means for rotating said sleeves, and devices carried by said sleeves, extending around said lamps, said devices being adapted to modify the light from the lamps.

6. In an advertising device, the combination of a stationary suport, one or more lamps carried by said support. sleeves fitting one within another mounted on said support, means for turning said sleeves, and devices in juxtaposition carried by said sleeves, adapted to pass between the lamps and the observer to affect the light from the lamps.

FRANK Z. HANSCOM.

Witnesses:
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