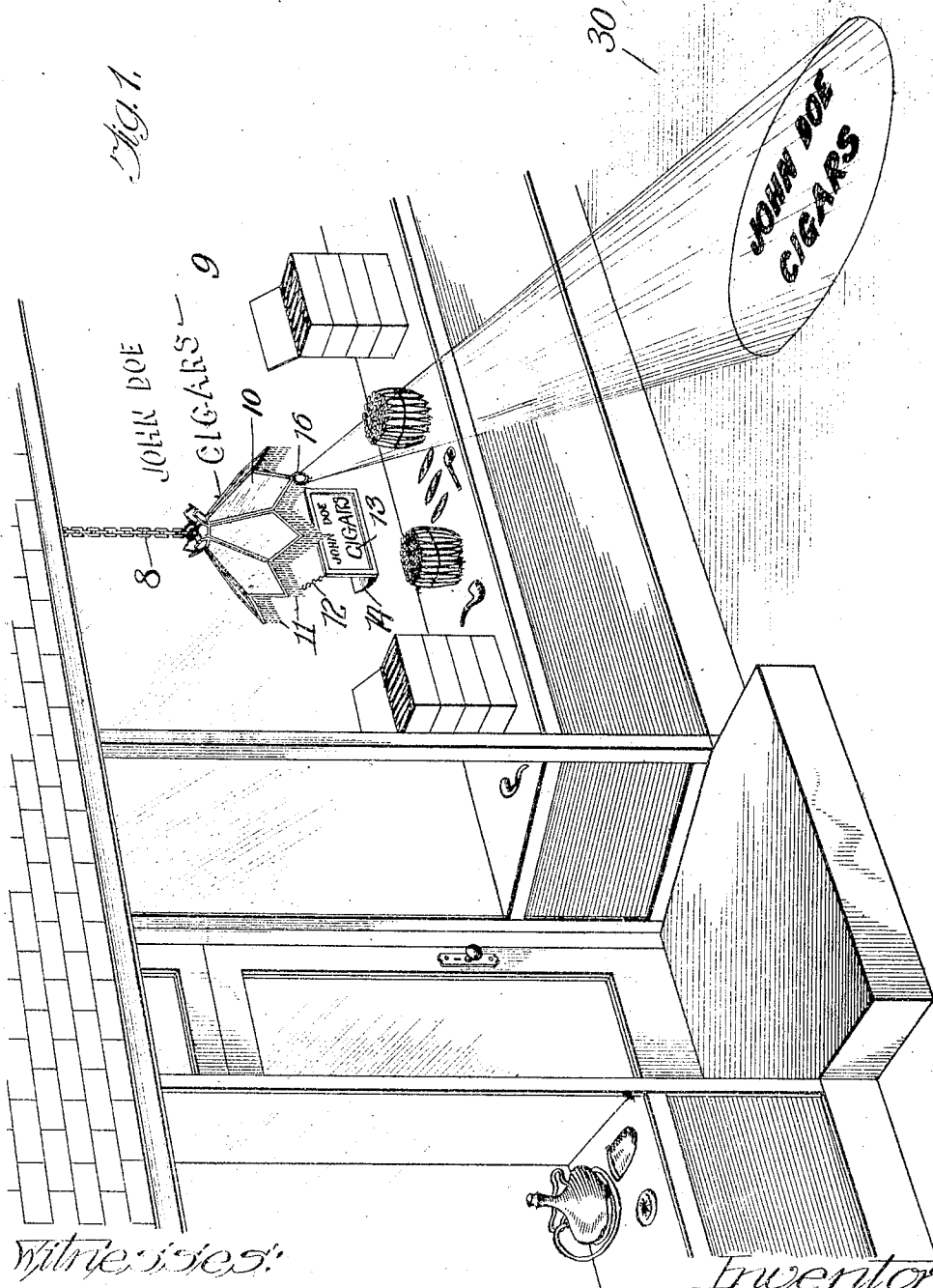


J. T. ROFFY.
 ADVERTISEMENT DISPLAYING APPARATUS.
 APPLICATION FILED NOV. 21, 1908.

940,281.

Patented Nov. 16, 1909.
 2 SHEETS—SHEET 1.



Witnesses:
 Allen F. Kuber.
 Geo. H. Nelson Jr.

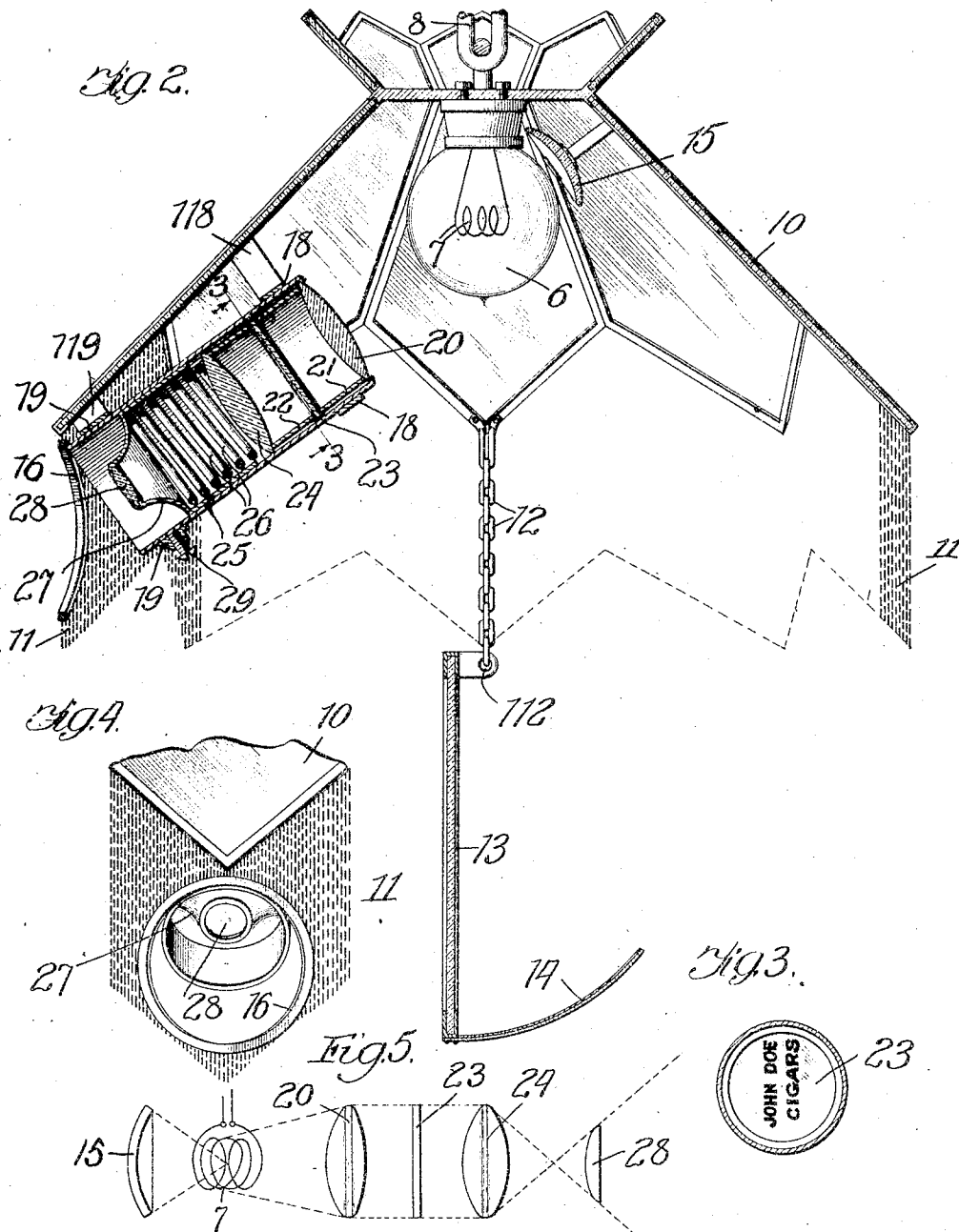
Inventor:
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 Attorneys

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Witnesses:

Allen F. Huber.

John H. Huber, Jr.

Inventor:

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UNITED STATES PATENT OFFICE.

JOSEPH T. ROFFY, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
HYMAN B. LEFKOWITZ, OF NEW YORK, N. Y.

ADVERTISEMENT-DISPLAYING APPARATUS.

940,281.

Specification of Letters Patent. Patented Nov. 16, 1909.

Application filed November 21, 1908. Serial No. 463,765.

To all whom it may concern:

Be it known that I, JOSEPH T. ROFFY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Advertisement-Displaying Apparatus, of which the following is a specification.

My invention relates to an improvement in the class of advertising apparatus involving a system of lenses for throwing upon a suitable display-surface an illuminated area containing the advertisement in magnified form.

I have more especially devised my improvement for projecting the advertisement from a store show-window upon the sidewalk in front of such window, using as the light-medium a domed incandescent electric lamp provided in the show-window for illuminating it, thereby employing the one lamp for both purposes; and the invention is therefore hereinafter described and claimed in that particular connection.

The primary object of my invention is to provide a construction of the lens-device employed which shall adapt it to project to the best advantage the light from an incandescent electric-lamp; and my invention consists in the construction of the lens-device, and in details of construction and combinations of parts forming the advertisement-displaying apparatus.

In the accompanying drawings, Figure 1 is a perspective view, in the nature of a diagram, illustrating my invention as applied to a show-window; Fig. 2 shows my improved apparatus by a broken view in sectional elevation; Fig. 3 is a section on line 3-3, Fig. 2; Fig. 4 is a broken perspective view showing the outer end of the lens-device through an opening in the depending lamp-dome fringe containing a binding-ring, and Fig. 5 is a diagram showing the arrangement of the lenses relative to each other and to the glass plate bearing the advertising-matter to be projected, as also relative to the lamp.

The lamp 6 is of ordinary incandescent-electric type employing a filament 7 formed with a plurality of convolutions; and it is adapted to be suspended, by a suitable medium 8, shown as a chain, in the show-window 9 of a store. A framed-glass dome 10

of translucent quality usually employed with incandescent-electric lamps and of the shape shown, or other suitable shape, with an apron shown as a fringe 11 depending from it about its edge, is hung over the lamp 6, and it may have suspended from it, as by chains 12, a framed glass sign 13 provided with an arc-shaped reflector 14 extending backwardly from its lower edge to reflect the light from the lamp through the sign for display of the latter. The sign is balanced by its suspension at the point 112 against the tendency of the reflector 14 to deflect it from its proper perpendicular position.

A reflector 15 having a concave surface of a certain radius is rigidly supported on the frame-work of the dome 10 within the latter to extend adjacent to one side of the lamp 6. In the fringe 11 an opening is formed in direct line, at a suitable inclination, with the reflector 15, this opening containing a metal binding shown as a ring 16. A lens-holder shown in its preferred form of a barrel 17 is stably supported to extend inclinedly, with its inner end concentric with the reflector 15 but at the opposite side of the lamp, and with its outer end registering with the ring 16, in the shade 10, by means of bearing-rings 18 and 19 surrounding the barrel respectively, near its opposite ends, these rings being on supporting-arms 118 and 119 extending in suitable positions into the interior of the shade from its frame-work. In the inner end of the barrel is provided a lens 20, preferably of the construction represented in Fig. 5 with its opposite convex surfaces of different radius of curvature, that of the inner surface having the greater radius. The radius of the outer surface of this lens is the same as that of the reflector 15. Spaced from the lens 20 in the barrel by a tube-section 21 and confined about its edge between the latter and another tube-section 22 of the same length, is a transparent plate 23 in the form of a glass disk bearing the advertising-matter to be projected. A magnifying lens 24 fits in the barrel against the outer end of the spacer 22, being held by a spiral spring 26 confined in a cap 25 having a reduced outer end 27 containing an opening concentric with the body-portion of the cap and in which is fastened a magnifying lens 28. The spring-bearing of the cap 26 adapts it to be ad-

justed in the barrel to properly adjust the lens 28 relative to the lens 24 for focusing purposes; and in the adjusted position of the outermost lens it is retained by any suitable means, as by a set-screw 29 working in the bearing-ring 19 against the barrel to indent the latter and thus afford an obstruction presented to the outer edge or shoulder of the cap against being forced outwardly by the tension of the spring 26.

The inclination of the lens-device in the situation shown is such as to project from its suspended position in a show-window a circular area of light under the restricting action, as to light-diffusion, of the fringed dome 10, upon the sidewalk 30 adjacent to the window, where the sign is peculiarly attractive to passers-by at night, which is, of course, the time for using the display. The light from the lamp passes through the inverted sign 23 in parallel rays, which are crossed, as represented in the diagram of Fig. 5, by the lens 24, to be inverted, as indicated in the diagram, by passing through the lens 28 to project the sign properly upon the sidewalk, as indicated in Fig. 1.

What I claim as new and desire to secure by Letters Patent is—

1. A show-window illuminating and advertisement-displaying apparatus comprising, in combination, a translucent dome, a lamp located in the upper part of said dome, a lens-holder supported within the dome to extend inclinedly from said lamp to project the advertisement to be displayed upon the sidewalk adjacent to said window, an advertisement-bearing transparent plate in said holder, and lenses arranged in said holder relative to each other and to said plate and lamp to project the advertising-

matter on the plate in magnified form upon said sidewalk.

2. A show-window illuminating and advertisement-displaying apparatus comprising, in combination, a translucent dome provided with a depending apron containing an opening, a lamp in the upper portion of said dome, and a lens-device consisting of a lens-holder rigidly supported within said dome to extend inclinedly in line with said opening to project the advertisement to be displayed upon the sidewalk adjacent to said window, an advertisement-bearing transparent plate in said holder, and lenses arranged in said holder relative to each other and to said plate and lamp to project the advertising-matter on the plate in magnified form upon said sidewalk.

3. An advertisement-displaying apparatus for show-windows comprising, in combination, a lamp, a translucent dome on said lamp provided with a depending apron containing a binding-equipped opening, a reflector supported at one side of said lamp, and a lens-device comprising a barrel supported within said dome on the frame thereof to extend inclinedly in line with said reflector and opening to project the advertisement to be displayed upon the sidewalk adjacent to said window, an advertisement-bearing transparent plate in the barrel, and lenses arranged in said barrel relative to each other and to the plate and lamp to project the advertising-matter on said plate in magnified form upon said sidewalk.

JOSEPH T. ROFFY.

In presence of—

R. A. RAYMOND,
L. G. KIRKLAND.