

T. WATANABE.
LAMP SHADE.
APPLICATION FILED APR. 14, 1915.

1,178,764.

Patented Apr. 11, 1916.

3 SHEETS—SHEET 1.

Fig. 1.

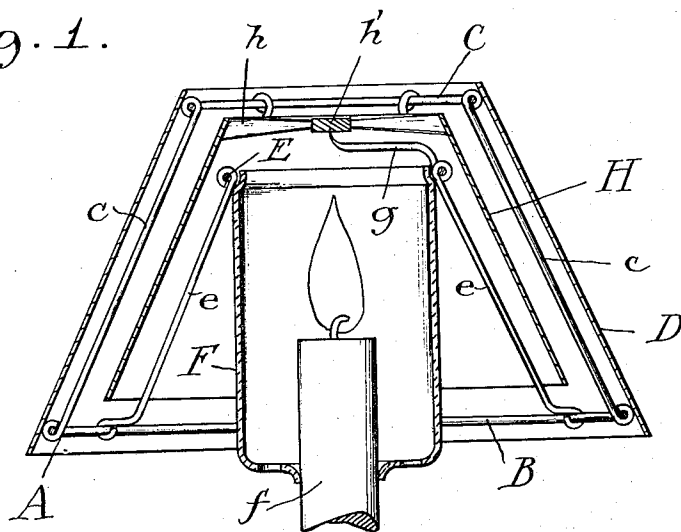
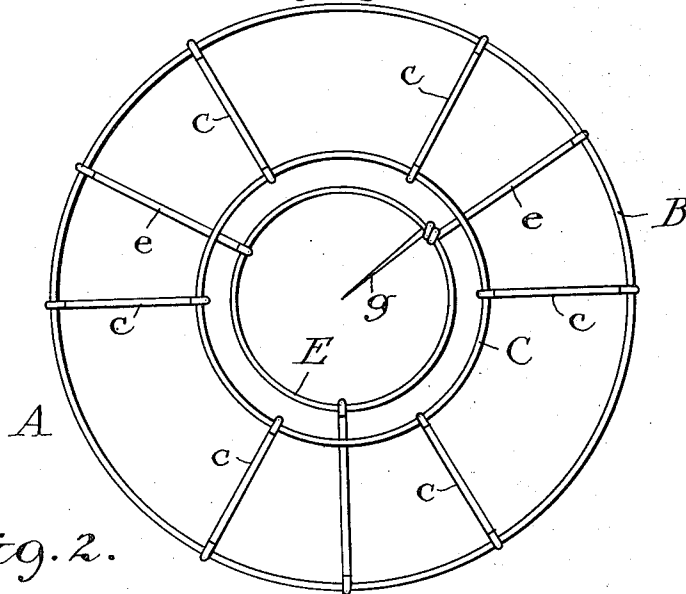


Fig. 2.



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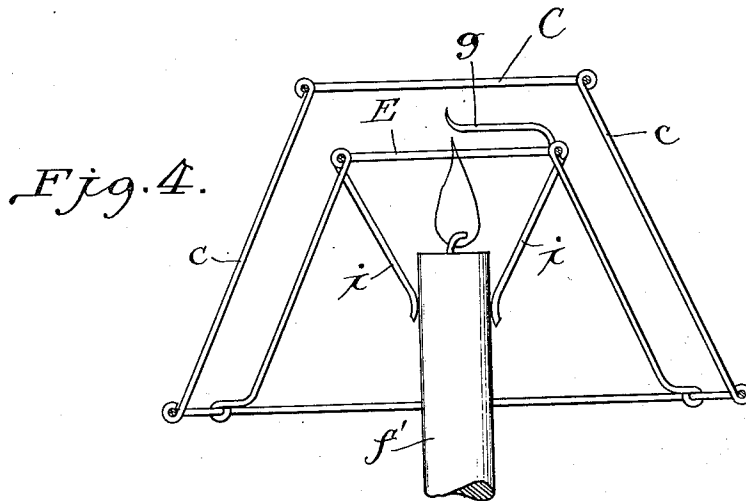
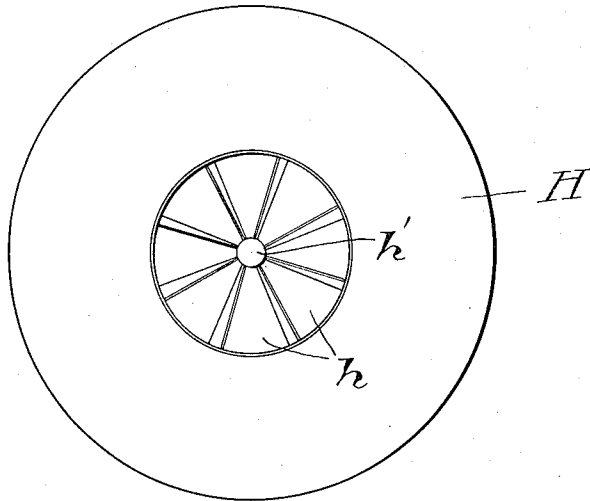
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3 SHEETS—SHEET 2.

Fig. 3.



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3 SHEETS—SHEET 3.

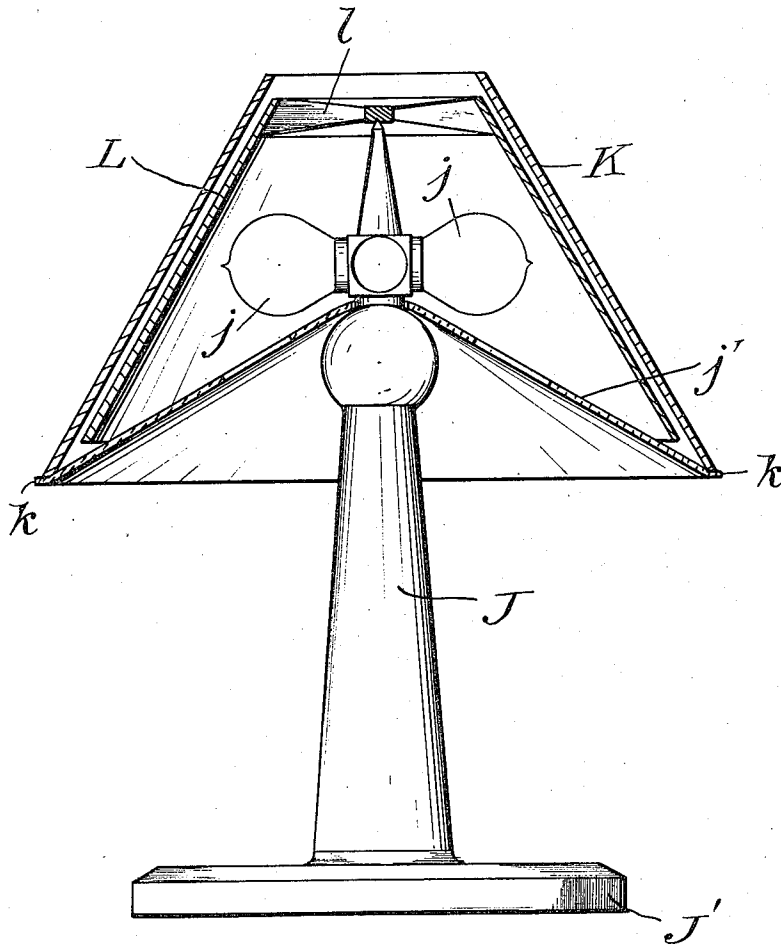


Fig. 5.

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UNITED STATES PATENT OFFICE.

TETSUSABURO WATANABE, OF NEW YORK, N. Y.

LAMP-SHADE.

Specification of Letters Patent.

Patented Apr. 11, 1916.

1,178,764.

Application filed April 14, 1915. Serial No. 21,222.

To all whom it may concern:

Be it known that I, TETSUSABURO WATANABE, a subject of the Emperor of Japan, residing in the city of New York, borough of Manhattan, county and State of New York, have invented a certain new and useful Lamp-Shade, of which the following is a specification.

This invention is a lamp shade, and the object of the invention is to produce a lamp shade which, when illuminated, produces scenic or color effects in motion.

With the foregoing object in view, the invention embodies, generally speaking, an exterior shade or screen of translucent material, exteriorly of which is revolubly mounted a secondary shade adapted to carry color or scenic effects. In the upper open end of the secondary shade are positioned propeller blades which, as the heat rises from the lamp, candle, or other source of illumination, are actuated by the heat waves and thereby revolve the secondary shade, with the result that the pictures or color schemes positioned thereon are projected on the outer shade and present a moving effect to the observer.

In the preferred embodiment of the invention, a frame is provided, which frame is adapted to serve as unitary means for supporting the exterior and secondary shades and simultaneously supporting the whole in fixed position upon the illuminating means.

Features of the invention and the advantages thereof, other than those specified, will be apparent from the following description taken in conjunction with the accompanying drawings and appended claims. In the accompanying drawings, I have illustrated different practical embodiments of the invention, but the constructions shown therein are to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is a central, vertical section through a lamp shade of the preferred embodiment of my invention. Fig. 2 is a plan view of the shade-supporting frame, with both the exterior and secondary shades detached. Fig. 3 is a plan view of the secondary shade. Fig. 4 is a central, vertical section through a modified form of the invention, and Fig. 5 is a like section through a shade embodying a further modification.

Referring to the drawings, and more par-

ticularly Figs. 1, 2 and 3 thereof, A designates a frame preferably built up from bent wire, embodying a lower annulus B, an upper annulus C, and spacing members *c*. Annulus C is of smaller diameter than annulus B, so that frame A is in substantially frusto-conical form. This frame A, with its lower annulus B, upper annulus C, and spacing members *c*, serves as a direct support for an exterior or outer shade D, which is preferably tubular, frusto-conical in shape. This exterior shade D I preferably construct of silk, paper, or other translucent material, and said shade is of such size as to completely obscure frame A.

Positioned interiorly of frame A and in the inner upper part thereof is an annulus E, which is considerably smaller than annulus C, and is maintained in fixed relation relative to the frame A by spacing rods *e*, secured at one of their ends to annulus E and at their opposite ends to annulus B. In this embodiment of the invention, annulus E forms a basis of support for the lamp shade, said annulus being adapted, as shown in Fig. 1, to rest upon the upper curved edge of a candle or lamp chimney F, whereby frame A and the parts carried thereby are supported in fixed position relative to the source of illumination, herein shown as a candle *f*.

Secured to, and extending upwardly and inwardly from, annulus E is an arm *g*, the upper end of which is tapered to make a point contact for, and form a bearing with, the hub *h'* of a fan or propeller *h*. Fan *h* is circular and has secured to its outer periphery a depending frusto-conical apron H, which operates as a secondary lamp shade. Fan *h* and secondary lamp shade H may be formed of any suitable material, but are preferably constructed of mica, or other non-inflammable material, so as to preclude the lamp shade from catching fire. It will be manifest that the heat, rising from the illuminating means *f*, will be forced to pass through the fan or propeller *h*, and, in so doing, will actuate the same and revolve secondary shade H. This secondary shade has formed upon either its inner or outer surface, as desired, scenic effects or color schemes, and the rays of light from the illuminating means penetrate these scenic effects or color schemes and project the same upon translucent exterior shade D, with the result that motion picture or color effects

are produced upon shade D. I preferably make shade D of silk of some pale tint, whereby a most pleasing effect is produced.

In the modified form of the invention 5 illustrated in Fig. 4, the structure is substantially the same, in all of its details, as that illustrated in Figs. 1, 2 and 3, with the exception that additional means, preferably clamping mechanism, is provided 10 whereby frame A may be supported directly upon the illuminating means. This clamping means is shown in the form of a plurality of resilient arms *i*, which are fixedly secured to the annulus E' and converge 15 downwardly, being adapted, as shown in Fig. 4, to tightly grip the candle, gas fixture, or other illuminating means *f*.

It will be manifest, from the foregoing discussion of the preferred form of my 20 invention and the modified construction disclosed, that the device is extremely simple and compact. Moreover, the lamp shade, with all its attachments and supporting means, is supported as a unit upon the 25 illuminating means. *E. g.*, the whole device may be lifted from the illuminating means, to allow of its ready cleaning; without dismantling the fixture and without the necessity of pliers or other tools, and this may 30 be done in a simple and expeditious manner. In other words, in the preferred embodiment of the invention, the whole device may be lifted from the lamp chimney F, whereas, in the modification shown in Fig. 4, the 35 clamping members may be withdrawn to release the device from the illuminating means.

In Fig. 5 I have illustrated an electric drop light, embodying a plurality of bulbs. 40 In this embodiment of the invention, a plurality of bulbs *j* is mounted on the stem J of a suitable standard J'. Immediately below bulbs *j* is positioned a reflector *j'*, the outer end of which is flanged, as at *k*, to 45 form a seat for a frusto-conical shaped exterior shade K. The upper end of stem J of the standard is tapered to form a bearing point for a secondary shade L, in the upper end of which is positioned a fan or 50 propeller *l*. Secondary shade L is revolved by the rising hot air currents from bulbs *j*, as hereinbefore described.

Having thus fully described the invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. In a device of the class described, a frame embodying a lower ring and an upper ring, spacing members intermediate said 60 rings whereby a support is formed, a main shade mounted on said support, a ring positioned interiorly of said support, spacing means cooperating with said interior ring

and the lower ring of the support for maintaining the parts in fixed relation, and means 65 cooperating with said interior ring for simultaneously mounting the whole in fixed relation relative to a source of illumination, in combination with a secondary shade, and means for rotatably mounting the same interiorly of the main shade, said secondary 70 shade having propeller blades in its upper open end, whereby the heat from the illuminating means, rising through the secondary shade, actuates the propeller blades and revolves said shade.

2. In a device of the class described, a 75 frame embodying a lower ring and an upper ring, spacing members intermediate said rings whereby a support is formed, a main shade mounted on said support, a ring positioned 80 interiorly of said support, spacing means cooperating with said interior ring and the lower ring of the support for maintaining the parts in fixed relation, and means 85 cooperating with said interior ring for simultaneously mounting the whole in fixed relation relative to a source of illumination, in combination with a trunnion mounted on 90 said frame, and a secondary shade revolvably mounted on said trunnion, said secondary shade having propeller blades positioned in its upper open end whereby the 95 heat from the illuminating means, rising through the lamp shade, actuates the propeller blades and revolves said secondary shade on the trunnion of the frame.

3. In a device of the class described, the combination of a standard, illuminating means mounted on said standard, a reflector 100 mounted on said standard beneath said illuminating means, a main shade supported directly on said reflector, and a secondary shade positioned interiorly of the main shade and revolvably mounted on said standard, said secondary shade having a plurality 105 of propeller blades positioned in its upper open end whereby the heat from the illuminating means actuates said propeller blades, thereby rotating the secondary shade.

4. In a device of the class described, the 110 combination of a fixed shade, a secondary shade rotatably mounted within the fixed shade, and concealed means positioned intermediate the upper and lower edges of the fixed and rotatable shades for supporting 115 said shades upon an illuminating medium, said secondary shade having propeller blades positioned within its upper end whereby the waves of heat rising from the illuminating medium operate upon the secondary 120 shade to rotate the same.

In testimony whereof I have signed my name to this specification.

TETSUSABURO WATANABE.