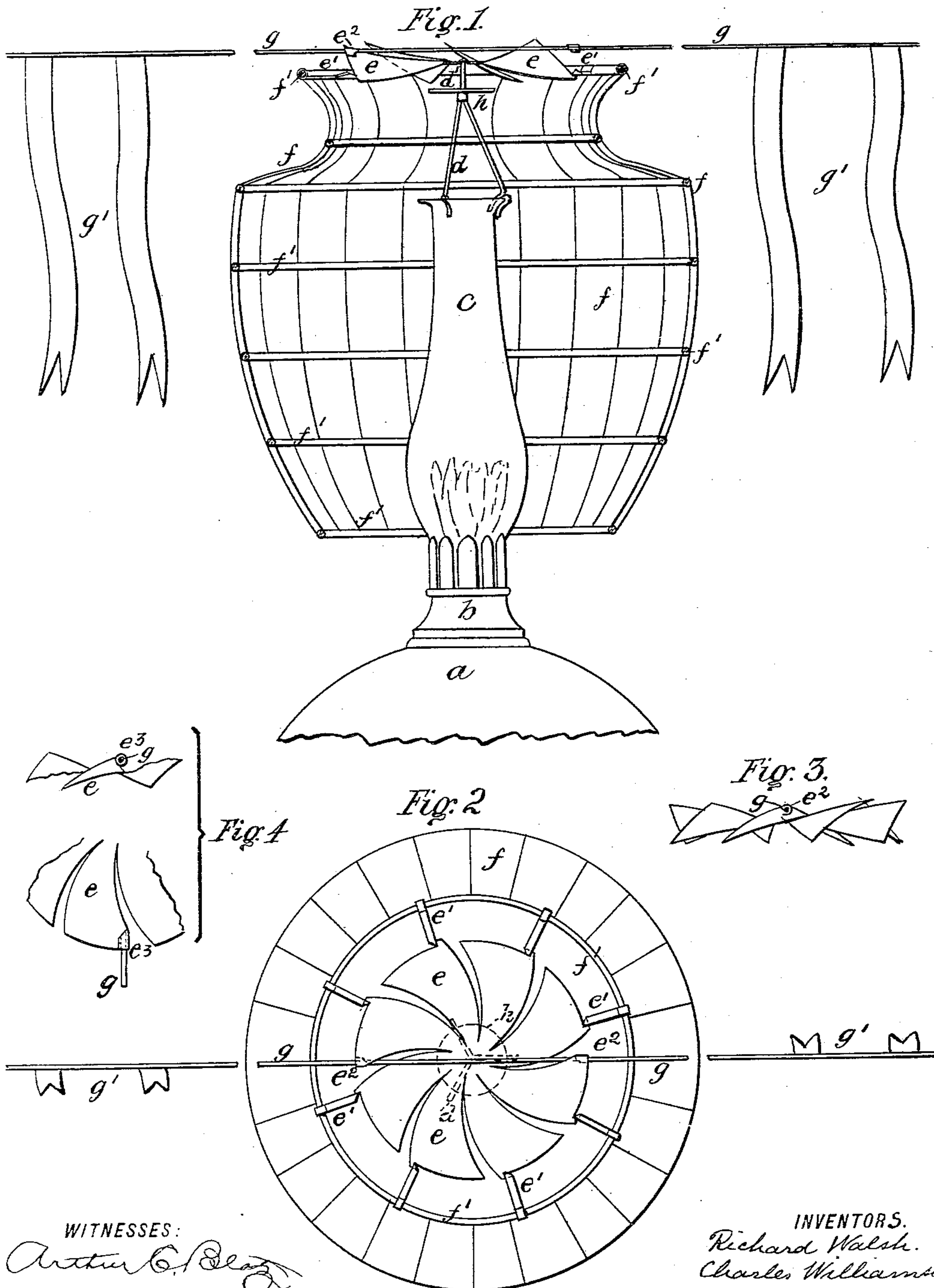


(No Model.)

R. WALSH & C. WILLIAMSON.
LAMP SHADE.

No. 555,135.

Patented Feb. 25, 1896.



WITNESSES:
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RICHARD WALSH AND CHARLES WILLIAMSON, OF NEWPORT NEWS,
VIRGINIA.

LAMP-SHADE.

SPECIFICATION forming part of Letters Patent No. 555,135, dated February 25, 1896.

Application filed June 1, 1895. Serial No. 551,370. (No model.)

To all whom it may concern:

Be it known that we, RICHARD WALSH and CHARLES WILLIAMSON, citizens of the United States, and residents of Newport News, county of Warwick, State of Virginia, have invented certain new and useful Improvements in Lamp-Shades, of which the following is a specification.

This invention has for its object the utilization of the flame, due to the open combustion of oil, gas, or other illuminant, as a source of energy for producing artistic, decorative, or attractive effects. To this end we suspend or support lamp-shades in such a manner and attach to them propelling-wheels having inclined vanes arranged and located so as to be acted upon by the ascending currents from the flames to which the shades are applied.

The shades may be made to partly or wholly cover the flames, be transparent or translucent, or partly transparent and translucent, and be decorated or ornamented in various colors, with various designs and scenic effects or representations of objects.

With these improved shades transparent chimneys are preferably used, which, surrounding the flames, concentrate the currents produced by them and cause them to act with sufficient force to impart to the shades rotary motion, said shades by the propelling-wheels being preferably suspended on pointed pins held in light metal frames attached to the tops of the chimneys and acting as pivoted supports applied to the center of the wheels.

We also propose to utilize the rotation of the propelling-wheels, arranged and actuated as set forth, as an insect-dispelling device by attaching to the wheels light arms or rods extending laterally and carrying depending ribbons or other devices which will travel around in circular paths. These devices may be used with or without the shades.

To describe our invention more particularly we will now refer to the accompanying drawings, forming part of this specification, in which—

Figure 1 illustrates our invention applied to an oil-lamp. Fig. 2 is a plan view of the same; and Fig. 3 is a side elevation of the

propelling-wheels, taken at right angles to Fig. 1. Fig. 4 shows a modification in the construction of the propelling-wheel for holding the insect-dispelling rods.

The source of power for imparting rotary motion to the lamp-shade is represented as an ordinary oil-lamp, *a* being part of the body, *b* the burner, and *c* the chimney. On the top of the chimney is set the tripod *d*, made of wire or other suitable form of metal, so as to be light, held and clamped on the edge of the chimney by the lower parts of its legs, which are bent to conform thereto. A vertical pointed pin *d'* is fastened in the upper end of the tripod and axially arranged in relation to the chimney *c*.

The propelling-wheel *e* is made in the simplest possible manner of a circular thin sheet of metal having a central recess formed by a depression of the metal, by which recess the wheel is supported on the pin *d'*. Curved radially-arranged slots or slits are made in the disk of metal and the sections formed thereby bent and inclined to constitute vanes. To provide fastening devices, by means of which the propelling-wheel may be centrally secured in the upper opening of the shade *f*, narrow strips *e' e'* are cut from the outer edges of the vanes *e e* without being entirely detached therefrom, said strips being bent so as to lie in radial positions and the outer ends of them bent or lapped around the upper part of the frame or top ring *f'* of the shade *f*. We thus produce a very light inexpensive propelling-wheel particularly adapted to the purpose for which it is designed.

The shades may be made of any shape and design, of any suitable light material, as paper, silk, &c., a preferred method of making them being shown in the drawings, the frame or shape-retaining part of the shade consisting of rings *f' f'*, made of strips of cane, bamboo or any other suitable material, the covering *f* being attached by pasting or otherwise thereto. Shades so made, when paper is used for the covering, will be very light and inexpensive, and an advantage of the construction shown is that more or less of the flame may be exposed, thus regulating the amount of free light given by the lamp as desired by

simply folding up the lower edge of the shade, which will remain in any position in which it may be placed.

The shades may be decorated by ornamental colored configurations to any extent and in any manner taste may dictate.

To impart utility to our invention beyond that due to the shade we attach to our device an insect-dispeller, consisting of rods g , which may be fastened together by a metallic connection or be one continuous rod arranged horizontally and carrying at the outer parts streamers or ribbons $g' g'$. These rods are shown in the main figures of the drawings attached to the vanes e of the wheel by simply bending the upper outer corners into hooks or loops $e^2 e^2$ on vanes diametrically arranged so as to hold the rods, as shown, when they are placed therein.

The modification at Fig. 4 consists in bending or folding the corners of the vanes e so as to form sockets e^3 into which the ends of the insect-dispelling rods g may be placed, thus securely holding them in horizontal position. The upper sketch shows an end view of one of the vanes so formed and the lower sketch a plan view of the same.

When our device is to be applied to a gas-flame such flame will be provided with a chimney, and it will be observed that whatever kind of flame is used the power derived therefrom, through the medium of the ascending currents due thereto, will cause the shade constructed and applied as described to be continuously and uniformly rotated as long as the flame is burning.

The disk h , which rests on the tripod d beneath the propelling-wheel, is for the purpose of deflecting the currents due to the flame to

cause them to act more strongly on the wheel than they would do if allowed to act directly on the central part of the wheel.

We claim as our invention—

1. The combination of a lamp-shade, and a propelling-wheel formed from a sheet of metal with radially-arranged inclined vanes, from the outer edges of which are slit and bent narrow strips radially arranged, and by means of which the wheel is secured to the top of the shade.

2. The combination of a lamp-shade, and a propelling-wheel formed from a sheet of metal with radially-arranged inclined vanes from the outer edges of which are slit and bent narrow strips, by means of which the wheel is secured to the top of the shade, and the upper corners of some of the vanes bent into loops or hooks, and rods provided with insect-dispersing devices held in said loops or hooks.

3. The combination of a lamp-shade, and a propelling-wheel formed from a sheet of metal with radially-arranged inclined vanes from the outer edges of which are slit and bent narrow strips, by means of which the wheel is secured to the top of the shade, and the upper corners of some of the vanes bent into loops or hooks, rods provided with insect-dispersing devices held in said loops or hooks, a deflector under the central part of the wheel.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 28th day of May, 1895.

RICHARD WALSH.
CHARLES WILLIAMSON.

Witnesses:

JOHN W. CROSSLEY,
W. I. FITZSIMMONS.