Nov. 22, 1949 R. J. BRANDT 2,489,172

MASK FOR PHOTOGRAPHIC LAMPS

Filed Oct. 2, 1946

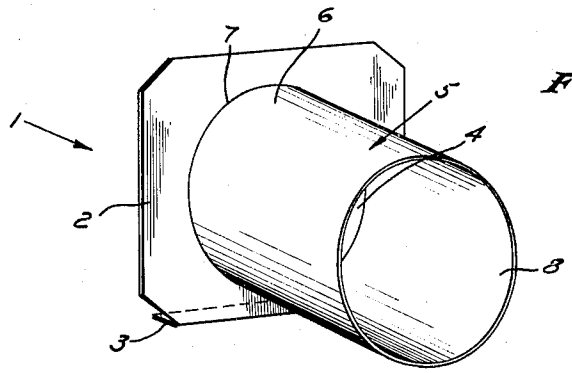


Fig. 1

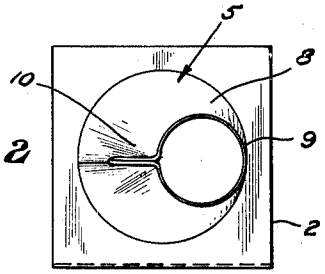


Fig. 2

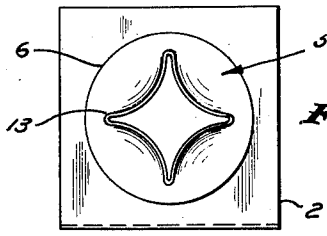


Fig. 5

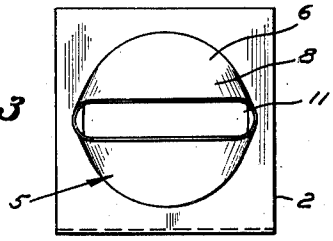


Fig. 3

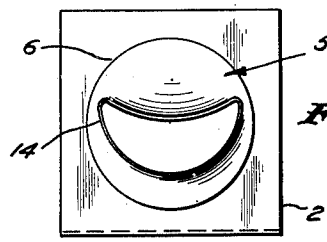


Fig. 6

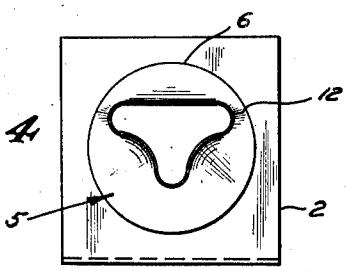


Fig. 4

INVENTOR.
ROBERT J. BRANDT
BY
ATTORNEY

Patented Nov. 22, 1949

2,489,172

UNITED STATES PATENT OFFICE

2,489,172

MASK FOR PHOTOGRAPHIC LAMPS

Robert J. Brandt, Los Angeles, Calif.

Application October 2, 1946, Serial No. 700,781

5 Claims. (Cl. 240—46.53)

1

The invention relates to a mask for photographic lamps.

Heretofore use has been made of a mask in the form of a slide having a truncated rigid sheet metal cone projecting therefrom. The slide fits in a U-shaped bracket extending at opposite sides and across the bottom at the front of the lamp, or small spaced U-shaped brackets are sometimes used. The aperture at the base of the cone is about the same size as the beam of light projected by the lamp and this is masked to a smaller size corresponding to the smaller apex of the cone. A number of such slides are provided having openings of different sizes at the apex of the cone, so that a round spot of light of different sizes may be obtained by substituting one mask for another.

In case it is desired to mask the light from the lamp so as to project a beam having parallel sides, use is made of a so-called "barn door" having two pivoted shutters which can be opened or closed more or less to provide a beam of desired width. This usually requires the use of a gobo or light shield to mask off the leak light at the ends of the shutters.

If it is desired to project a beam of light which is neither circular nor having parallel sides, but irregular in contour, use is made of a mask which is cut out to provide the desired contour, and this mask is supported either on or in front of the lamp. In some cases the irregular contour is obtained by use of a glass plate painted black to provide the desired contour.

It will thus be seen that heretofore it has been necessary to employ a number of different devices in order to mask the circular beam of light from the lamp so as to provide a beam having various shapes. An object of the present invention is to provide a single device which will take the place of all of the prior devices referred to above. This is accomplished by providing a mask which is flexible and readily shaped by hand to provide a large number of shapes of light apertures, the device being deformable by hand while in position on the lamp so that the spot of light projected on the photographic scene may be readily modified while observing the effect of such modification, which saves valuable time.

The invention provides a tube or cylinder of material such as pliant soft copper, the tube or cylinder being readily moldable by pressure of the hand into various shapes of mask openings.

For further details of the invention reference may be made to the drawings wherein Fig. 1 is a perspective view of the mask according to the present invention.

Figs. 2 to 6 are front views in elevation showing various shapes of mask openings which can be obtained by shaping or molding by hand pressure, while the mask is on the lamp, not shown.

2

Referring in detail to the drawings, the mask 1 is provided with the usual slide 2 in the form of a metal plate which slides in the U-shaped bracket or brackets on the front of the spot lamp as well known. The slide 2 has the usual shelf 3 to space the bottom of the slide from the bottom front of the lamp. Also slide 2 has circular opening 4 which is about the same size as the lens at the front of the spot lamp. According to the present invention, the mask is in the form of a tube or cylinder 5 of soft copper having a weight, for example, of about 4 ounces per square foot. The cylinder 5 is secured at its inner end 6 over the opening 4, being soldered to the slide 2 as indicated at 7.

The soft copper is flexible and pliant, also substantially inelastic so that it will retain whatever shape is given it, and it is soft enough so that it can be shaped or molded by pressure of the hand, whereby the aperture 8 at the outer end of the cylinder 5 can be suitably modified by hand while the slide 2 is in position on the lamp, not shown.

By way of example, various shapes are shown in Figs. 2 to 6. If it is desired to obtain a mask opening 9 shown in Fig. 2 which is circular but smaller than the opening 4 at the base of the cylinder 5, one side of the cylinder 5 may have the side walls squeezed together by hand pressure as indicated at 10 whereby the remaining periphery at the outer end of the cylinder 5 results in a smaller opening 9 as shown in Fig. 2. The opening 9 may be shaped into a circle by hand or it may be shaped around a round object not shown. Also the opening 9 may be given various shapes other than circular, simply by molding or bending the outer end of the cylinder 5. If it is desired to obtain a narrow beam of light having parallel sides, the outer end of cylinder 5 may be bent or molded accordingly as indicated at 11 in Fig. 3. A somewhat triangular shape 12 is indicated in Fig. 4, a diamond shape 13 in Fig. 5 and a crescent shape 14 in Fig. 6. The mask openings shown in Figs. 2 to 6 are merely examples, as the mask opening at the outer end of the cylinder 5 may assume various other shapes, regular or irregular, as the soft copper is readily shaped or molded by hand.

If the copper cylinder 5 becomes hard due to repeated bending, it can be annealed by heating it with a blow torch or other source of heat.

Materials having characteristics similar to those above described may be used instead of copper; for example, soft aluminum. All such materials should, of course, be readily moldable by hand and be opaque so that the light emerges as a beam having a countour corresponding to the contour at the outer end of the mask.

Various other modifications may be made in the invention without departing from the spirit of the following claims.

I claim

1. A mask for photographic lamps, said mask comprising a slide having an aperture, a cylinder laterally projecting from said slide, said cylinder having an outer end and having an inner end registering with said aperture and secured to said slide, said cylinder being composed of opaque, pliant, substantially inelastic material readily shaped by pressure of the hand while the mask is on the lamp to provide light openings of various shapes at its outer end.

2. A mask according to claim 1 wherein said material is soft metal.

3. A mask according to claim 1 wherein said mask is soft copper having a weight of about 4 ounces per square foot.

4. A lamp mask comprising a tube of opaque, pliant material readily moldable into various mask openings by pressure of the hand while on the lamp.

5. A lamp mask comprising a slide having an aperture, a cylinder fixed at its inner end to said slide over said aperture, said cylinder being composed of opaque pliant material readily changeable and foldable, by pressure of the hand while the mask is on the lamp, into openings of various shapes including a circular light opening smaller in size than the size of said inner end.

ROBERT J. BRANDT.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,420,848	Larson et al.	June 27, 1922
1,471,842	Gage	Oct. 23, 1923
1,502,670	Hill	July 29, 1924

FOREIGN PATENTS

Number	Country	Date
140,517	Great Britain	Mar. 24, 1920