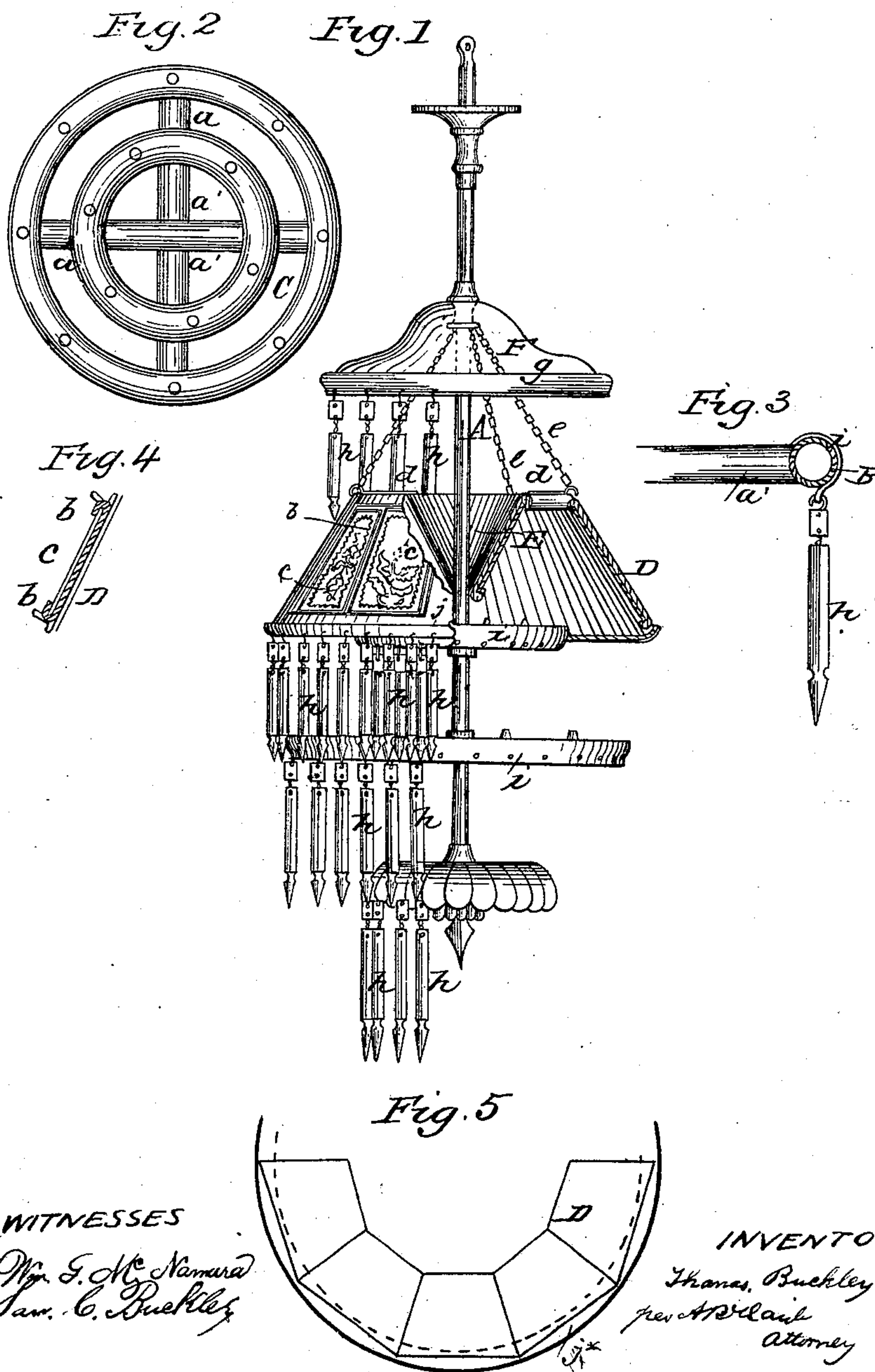


T. BUCKLEY.

Chandelier.

No. 98,469.

Patented Jan'y 4, 1870.



WITNESSES
Wm. F. Mc Namara
Sam. C. Buckley

INVENTOR
Thomas. Buckley
per A. H. Clark
Attorney

United States Patent Office.

THOMAS BUCKLEY, OF NEW YORK, N. Y.

Letters Patent No. 98,469, dated January 4, 1870.

IMPROVEMENT IN CHANDELIERS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, THOMAS BUCKLEY, of the city, county, and State of New York, have invented a new and improved Chandelier; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in chandeliers designed for use in public and private apartments.

The object of the invention is to obtain a chandelier, which will cause the light emitted from its jets to be more generally diffused throughout the apartment than hitherto, and at the same time have a requisite portion of the rays thrown or reflected downward—a necessity, owing to the elevated position of suspended lights generally; and the means by which this object is accomplished, are—

First, by the use of two or more burner-rings specially arranged in relation to a series of reflectors, and other devices, placed at such angles and in such positions as to produce the desired effect.

Second, by rims loosely fitted on the burner-rings, being perforated to enable glass pendants to be attached or detached as desired.

Third, by a ring or hoop, into which the lower end of one of the reflectors is fitted.

Fourth, by the use of a transparent or semi-transparent canopy, with its several rims in connection with the reflectors and burner-rings above mentioned.

In the accompanying sheet of drawings—

Figure 1 is an elevation of my invention, partly in section.

Figure 2, a plan or top view of the rings to which the burners are attached.

Figure 3, a transverse section of one of said rings, showing the rim which encompasses it, and to which rim the pendants are attached.

Figure 4, a section of the reflector, showing the manner in which the external reflectors are attached.

Figure 5, a detached plan or top view of the reflector.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a gas-pipe or rod, which projects downward from the ceiling, and to which the several parts of the chandelier are attached.

B C are two rings, of tubular form, placed one above the other, and connected to and communicating with the pipe or rod A, by tubular arms *a a'*.

The upper ring B is smaller in diameter than the lower one C, as shown in figs. 1 and 2, the upper ring being nearly in the same plane with the lower edge of

a reflector, D, which is of the form of a truncated polygonal pyramid.

The foundation of this reflector may be made of sheet-metal, struck up or swaged to form ribs or beading, which surrounds sunken parts or panels, in each of which there is soldered, or otherwise attached, metal strips *b* all around, near the edge, and within the strips *b* of each panel there is inserted a glass reflector, *c*, which is secured in position by bending or folding the strips *b* over its edges. (See, more particularly, fig. 4.)

The inner surface of the reflector D is formed of glass, coated with nitrate of silver in the usual manner.

E is an interior reflector, made in the form of an inverted polygonal pyramid, through which the pipe A passes centrally, the top of E being attached to the top of D by rods or arms *d*. This reflector E is made by attaching glass plates, silvered, as hereinbefore described, to a metallic foundation or frame.

The reflectors *c*, inserted in the panels in the exterior of D, throw or reflect the rays of light outward, and give a cheerful appearance to the apartment. This is an essential feature of the invention.

The reflectors D and E are suspended from the pipe A, by means of wires or chains *e* attached to the top edge of D, and to a hub or boss, *f*, on the pipe A.

This hub or boss is directly below a canopy, F, which is of glass, porcelain, or other transparent or semi-transparent material, and is encompassed by a metal rim, *g*, to retain, in case of casual breakage, the parts of the canopy together. The canopy is for the purpose of preventing the ceiling being disfigured by the smoke from the burners, and being made of a transparent or semi-transparent material, the light from the burners below, which passes up between the reflectors D E, is permitted to penetrate the canopy and light the upper portion of the apartment. An opaque canopy of metal would render the upper part of the room gloomy; besides, a metal canopy conducts the heat, and when large burners are used, there is danger of the soft solder being melted, and the canopy detached from the pipe A, and they are also liable to rust, or oxidize.

Glass pendants *h* are attached to the rim *g*, to the lower edge of the reflector D, and to the ring C, and also to B, if necessary or required.

By having the rings B C arranged, as shown and described, one larger in diameter than the other, and the smaller one, B, above the larger one, C, the light is much better diffused than hitherto, and, in connection with the exterior reflecting-surfaces of D, the light is thrown upward, downward, and laterally.

The pendants *h*, of the rings B C, are attached to rims *i*, which are fitted on and encompass said rings. (See fig. 3.)

The rims *i* admit of the pendants being readily attached to and detached from the rings for the purpose

of cleaning the former, and said rims materially reduce the cost of construction, as they admit of the rings being made of cylindrical tubes, whereas, by other modes of attachment, they would require to be drawn or made with a permanent flange perforated to receive the hooks of the pendants.

The lower end of the reflector D is soldered, brazed, or otherwise secured to a metallic ring or hoop, *j*, which adds to the appearance of the reflector, and the whole chandelier generally, and renders the reflector extremely stiff and durable, so that it cannot be readily bent out of proper shape.

I would remark, that instead of the lower ring C, with burners attached, burners may be attached to arms communicating directly with the pipe A, the arms being equal in length to one-half the radius of the ring, so that the burners will be at the same distance from the pipe A, as those of the ring. This, however, would be a matter of taste only, the result being the same in either case.

I would also remark that the canopy may be of circular, rectangular, or other form, as circumstances require.

I do not claim, broadly, or irrespective of the ring or hoop *j*, the double reflector composed of the parts D E; but

I do claim as new, and desire to secure by Letters Patent—

1. The burner-rings B C, two or more, having different diameters, and placed one above the other in parallel planes, the smaller one being uppermost, in combination with the reflectors D E and the pipe A, substantially as and for the purpose herein set forth.

2. The rims *i*, fitted loosely on the burner-rings B C, and perforated to admit of the glass pendants *h* being attached to and detached from said burner-rings, substantially as shown and described.

3. The ring or hoop *j*, in which the lower end of the polygonal reflector D is fitted, substantially as and for the purpose set forth.

4. The combination of the reflectors D E, suspended directly to the pipe A, the burner-rings B C, the transparent or semi-transparent canopy F, with its rim *g*, and the rims *i*, with pendants *h* attached and fitted on the burner-rings B C, all arranged substantially as and for the purpose specified.

5. The canopy F, provided with a metallic rim, *g*, and made of a transparent or semi-transparent material, in combination with one or more reflectors and gas or other lights, substantially as and for the purpose set forth.

THOMAS BUCKLEY.

Witnesses:

WM. F. McNAMARA,
LAW. C. BUCKLEY.