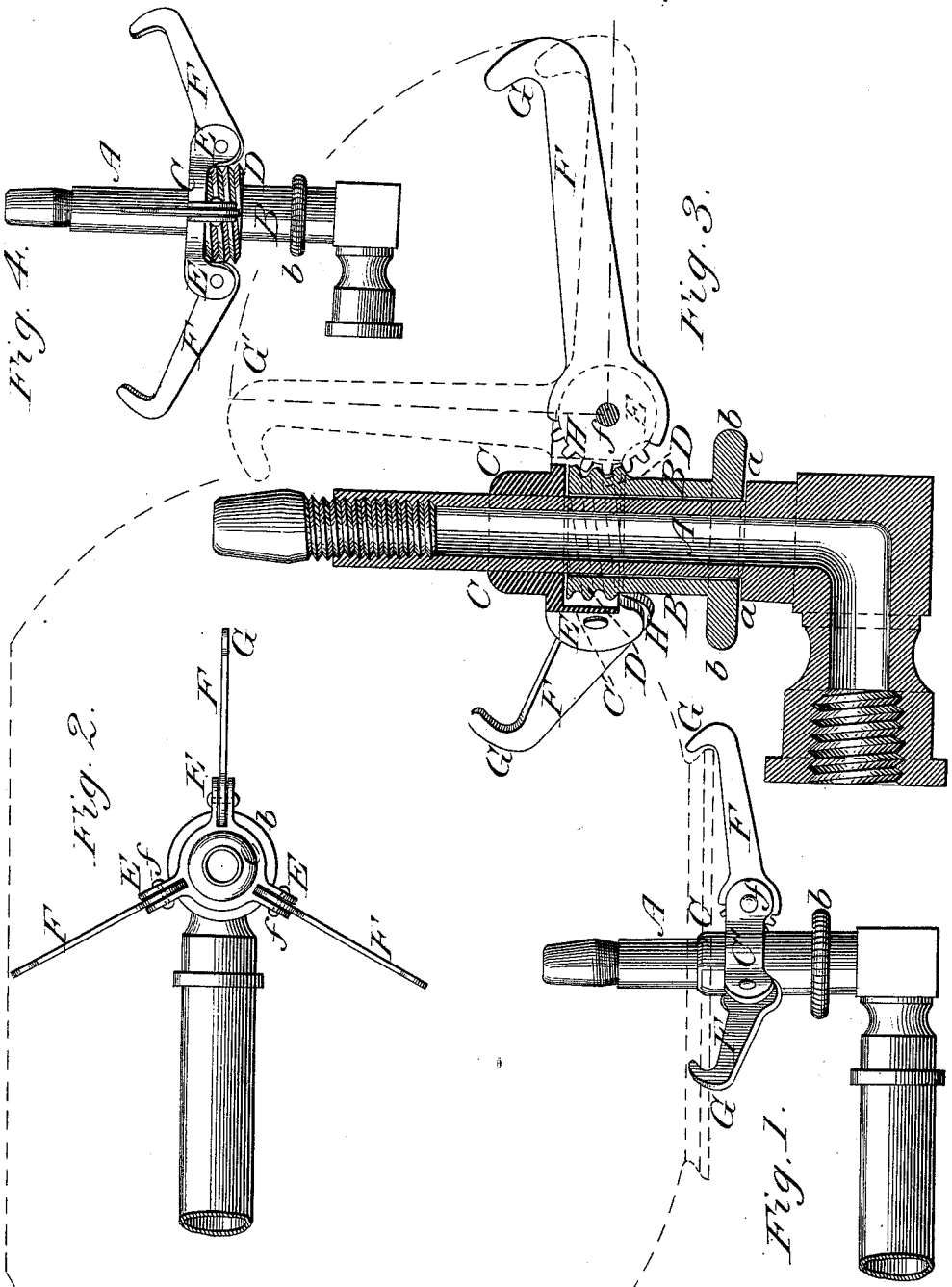
J. BREEDEN.

Holder for Globes and Shades for Gas and Other Lights.

No. 214,357. Patented April 15, 1879.



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JOSEPH BREEDEN, OF BIRMINGHAM, ENGLAND.

IMPROVEMENT IN HOLDERS FOR GLOBES AND SHADES FOR GAS AND OTHER LIGHTS.

Specification forming part of Letters Patent No. **214,357**, dated April 15, 1879; application filed March 4, 1879; patented in England, November 30, 1878.

To all whom it may concern:

Be it known that I, JOSEPH BREEDEN, of Birmingham, in the county of Warwick, England, have invented a new and useful Improvement in Holders or Galleries for Globes and Shades for Gas and other Lights; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention of improvements in holders or galleries for supporting globes and shades used with gas and other lights relates to holders of that class in which the arms or claws are made to expand and contract, to suit different-sized globes and shades, and to enable the globe or shade to be placed and secured in or on the holder; and it has for its object to provide a neat and compact arrangement of expanding holder or gallery, in which the means of adjustment are almost entirely concealed from view.

According to my invention the radial arms of the holder or gallery are hinged or pivoted to ears fixed around the central tube of the burner, and the arms work in vertical planes, so that by bringing them nearer to the horizontal or the vertical position, as the case may be, their extremities will diverge more or less, as required.

In order to adjust the arms and hold them rigidly in any position in which they may be set, each arm has a toothed sector concentric with its pivot, and the several arms are adjusted simultaneously by a tangent screw or worm gearing with the toothed sectors of all the arms. This worm is fitted to rotate on the central tube of the burner, and is confined between collars or shoulders, to prevent any vertical movement of the worm, and it has a milled flange, ornamental knob, or other convenient means of rotating it. This worm would be concealed from view by a downwardly-projecting rim or shield.

For ordinary chandelier or bracket globes the arms would have hook-shaped claws at the outer extremities, to embrace and grasp the flange of the globe or shade.

In the accompanying drawings, Figure 1 is an elevation, and Fig. 2 a plan, of a gas-bracket provided with my improved globe-holder; and Fig. 3 is a central vertical section of the same, drawn to a larger scale. Fig. 4 is an elevation, like Fig. 1, but slightly modified.

A is the central or jet tube of the burner, which is externally plain; and B is a short tube or sleeve, fitted to rotate upon it between a shoulder, *a*, at bottom, and a collar, C, at top, soldered or otherwise fixed to tube A. D is a coarse screw-thread or worm cut on the upper part of the sleeve B, and *b* is a milled flange around the bottom of said sleeve, by means of which it is rotated.

In Fig. 1 the collar C has a downwardly-projecting rim, C′, which conceals the worm D; but in Fig. 4 this rim is omitted and the worm is visible.

E are pairs of ears projecting radially from collar C, upon which they are formed at equal distances apart; and F are the radial arms of the globe-holder or gallery, terminating at their outer ends in claws, which embrace the flange of the globe. Each arm F is received at its other end between a pair of the ears E, and works on a horizontal pivot, *f*, fixed therein. H is a toothed sector formed on this end of each arm F, concentrically with its pivot *f*.

The sectors of all the arms gear with the worm D on tube B, by rotating which the arms are simultaneously caused to describe arcs of equal length, thereby expanding or contracting the embrace of the claws G, as indicated by the dotted lines in Fig. 3, the claws G always remaining concentric with the burner.

The arms F may be raised until the claws G are close up to the burner, as indicated at G′ in Fig. 3, so as to occupy less room and be less liable to injury when packed for carriage.

When intended to support an opal glass or other shade, or *abat-jour*, the holder would be constructed as above described, except that the arms F would be of greater length, and the claws at their extremities would be of a form adapted to embrace the rim of the shade.

What I claim is—

1. The arms of gas and other globe and shade holders, mounted on pivots or axes in

a support on the burner-tube, and combined with the same, as shown, whereby the arms shall be free to describe arcs of circles, substantially as and for the purpose described.

2. In a gas and other globe and shade holder, the combination, with the arms mounted to work on pivots, and provided with toothed sectors, as described, of the worm mounted to rotate and gear with said sectors substantially as and for the purpose shown and described.

The above specification of my invention signed by me this 6th day of February, 1879.

JOSEPH BREEDEN.

Witnesses:
GEORGE HEMMING,
ALFRED COX.