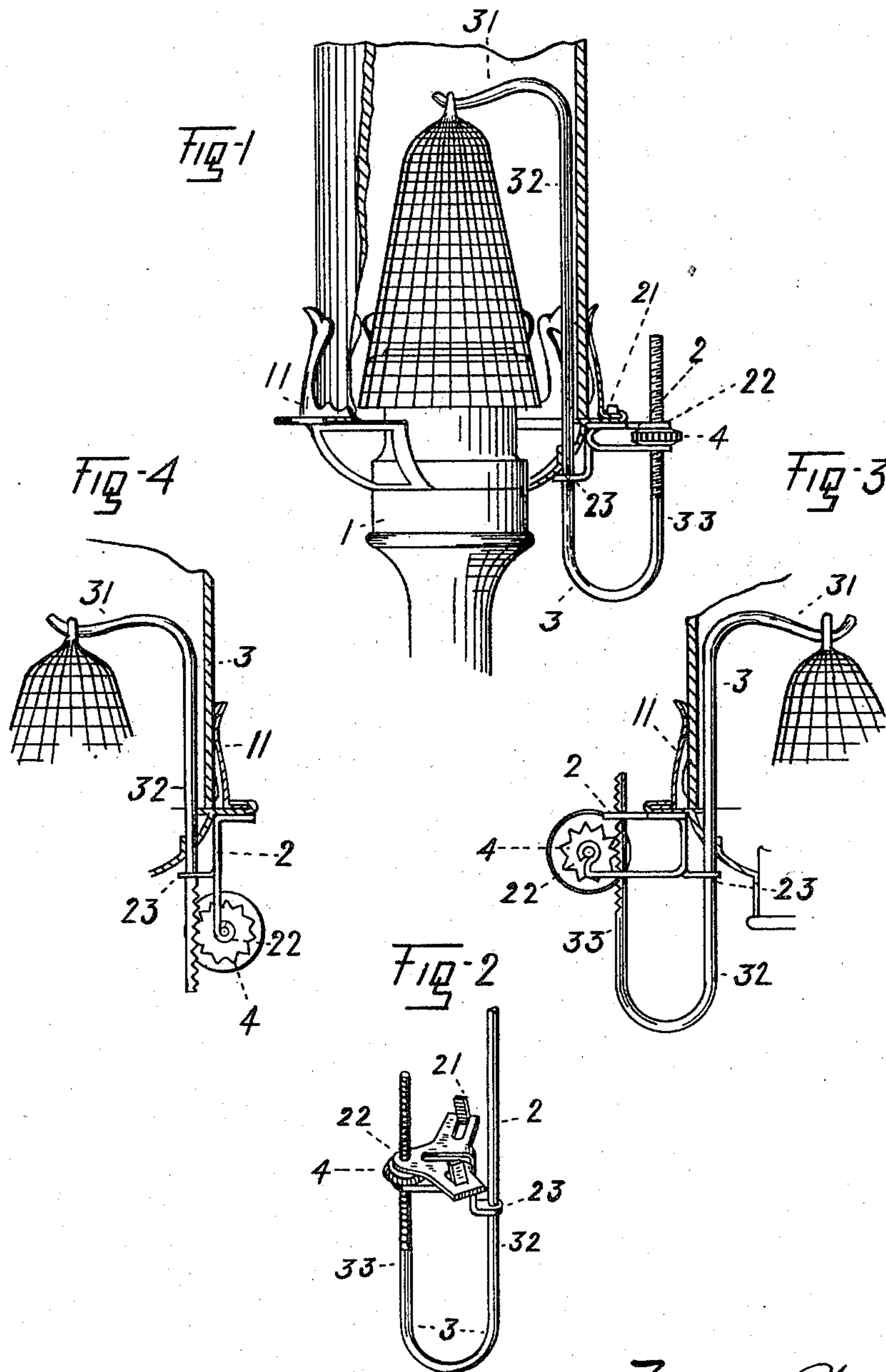


(No Model.)

F. RHIND.  
INCANDESCENT BURNER.

No. 586,060.

Patented July 6, 1897.



*Frank Rhind*

INVENTOR

WITNESSES:

*Gas. R. Coe*  
*Chas. R. Tyres*

BY *Josh. Cooper*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

FRANK RHIND, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-HALF  
TO THE BRIDGEPORT BRASS COMPANY, OF SAME PLACE.

## INCANDESCENT BURNER.

SPECIFICATION forming part of Letters Patent No. 586,060, dated July 6, 1897.

Application filed March 9, 1897. Serial No. 626,651. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK RHIND, a citizen of the United States, residing at Bridgeport, Connecticut, have invented a new and useful Improvement in Incandescent Burners, of which the following is a specification.

My invention relates to the means of supporting the mantles or hoods used in incandescent burners. It is intended to provide means for vertically adjusting such mantles with a minimum risk of breakage.

In the accompanying drawings, Figure 1 represents in perspective, partly broken away, an incandescent burner embodying my invention. Fig. 2 in elevation shows a portion of my device detached from the rest. Figs. 3 and 4, partly in elevation and partly in vertical section, show modifications.

The same numerals refer to like parts in the several views.

1 designates an incandescent burner having a gallery 11; 2, a bracket provided with locks 21, bearing 22, and guide 23; 3, a post formed with bent portion or hook 31, body 32, and leg 33; 4, an adjusting device.

In the example of my invention illustrated in Figs. 1 and 2 of the drawings the burner 1 and gallery 11 may be of any desired form. Attached to the gallery 11, as by locks 21, is the bracket or holder 2. The bracket 2 has a bearing 22, here shown as consisting of horizontal perforated plates, for an adjusting device 4, shown as a rotating nut. The body 32 of the post 3 passes up through the guide 23 into the chimney of the burner 1 and is provided at its upper end with a bent portion or hook 31, adapted to support a hood or mantle in the axis of the burner. Below the body 32 the post 3 is bent outward and upward to form a reverted leg 33, which passes up through the bearing 22 of the bracket 2 and is threaded to engage with the nut 4.

The operation of my device will be readily understood from an inspection of the drawings. The burner being provided with my device, as shown, the mantle is hung on the hook 31 and the chimney placed in position. By means of the nut 4 the post 3, carrying the mantle, is adjusted to the proper height.

When the mantle has been once burned, it is of extremely delicate texture. Usually its appearance is first injured by irregular flakes dropping from its lower edge. With my device it is possible to lower the mantle very gradually with little or no risk of striking its weak lower edge against the burner. In this way the life of the mantle may be considerably prolonged.

In Fig. 3 of the drawings I have shown the leg 33 of the post 3 as toothed instead of threaded and the adjuster 4 as a pinion engaging therewith and provided with a thumb-wheel. So in Fig. 4, except that the reverted leg 33 is omitted and the pinion applied directly to a rack portion on the body 32. In both of these modifications the movement of the post and suspended mantle is somewhat more rapid than in the construction first described, but still fully controlled by the operator.

I am aware that heretofore mantles have been suspended from a post exterior to the mantle and within the chimney and that such posts have been manually adjustable and held in the desired position, as by a set-screw. In practice this method is found objectionable in that the fragile mantle cannot be raised or lowered with sufficient steadiness to avoid breakage.

I am also aware that a patent has been granted for a post situated axially of the burner within the mantle and screw-threaded at its lower end, so that it may be vertically adjusted by rotation in a fixed nut.

In my device the supporting-post is exterior to the mantle and can be adjusted without rotating or disturbing it.

I do not consider myself limited to the forms of construction shown, as many mechanical alterations may be made without departing from my invention.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is as follows:

1. In an incandescent burner a mantle-supporting post exterior to the mantle and means substantially as described for raising and lowering said post.

2. In an incandescent burner a mantle-supporting post exterior to the mantle guided against other than vertical motion and means substantially as described for raising and lowering said post.

3. In an incandescent burner a mantle-supporting post and a rotary adjuster engaging with said post and adapted to communicate vertical motion thereto, substantially as described.

4. In an incandescent burner in combination, a mantle-supporting post consisting of a hook, a body and a reverted leg, a guide en-

gaging said body and a rotary adjuster engaging with said leg, substantially as described.

5. In an incandescent burner in combination, a mantle-supporting post consisting of a hook, a body and a reverted screw-threaded leg, a guide engaging said body and a nut on said leg adapted to communicate rotary motion to said post, substantially as described.

FRANK RHIND.

Witnesses:

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